



Mackenzie SFMP



Mackenzie Sustainable Forest Management Plan

Facilitator Report

March 31, 2015



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

March 31, 2015

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

Dear Jason,

Here is the 2014/2015 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".

Alan Wiensczyk, RPF
Trout Creek Collaborative Solutions

Alan Wiensczyk, RPF
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Mackenzie SFMP



Mackenzie Sustainable Forest Management Plan

Public Advisory Group

Facilitator Report
2014-2015

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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 Lands¹. 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.

¹ 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:

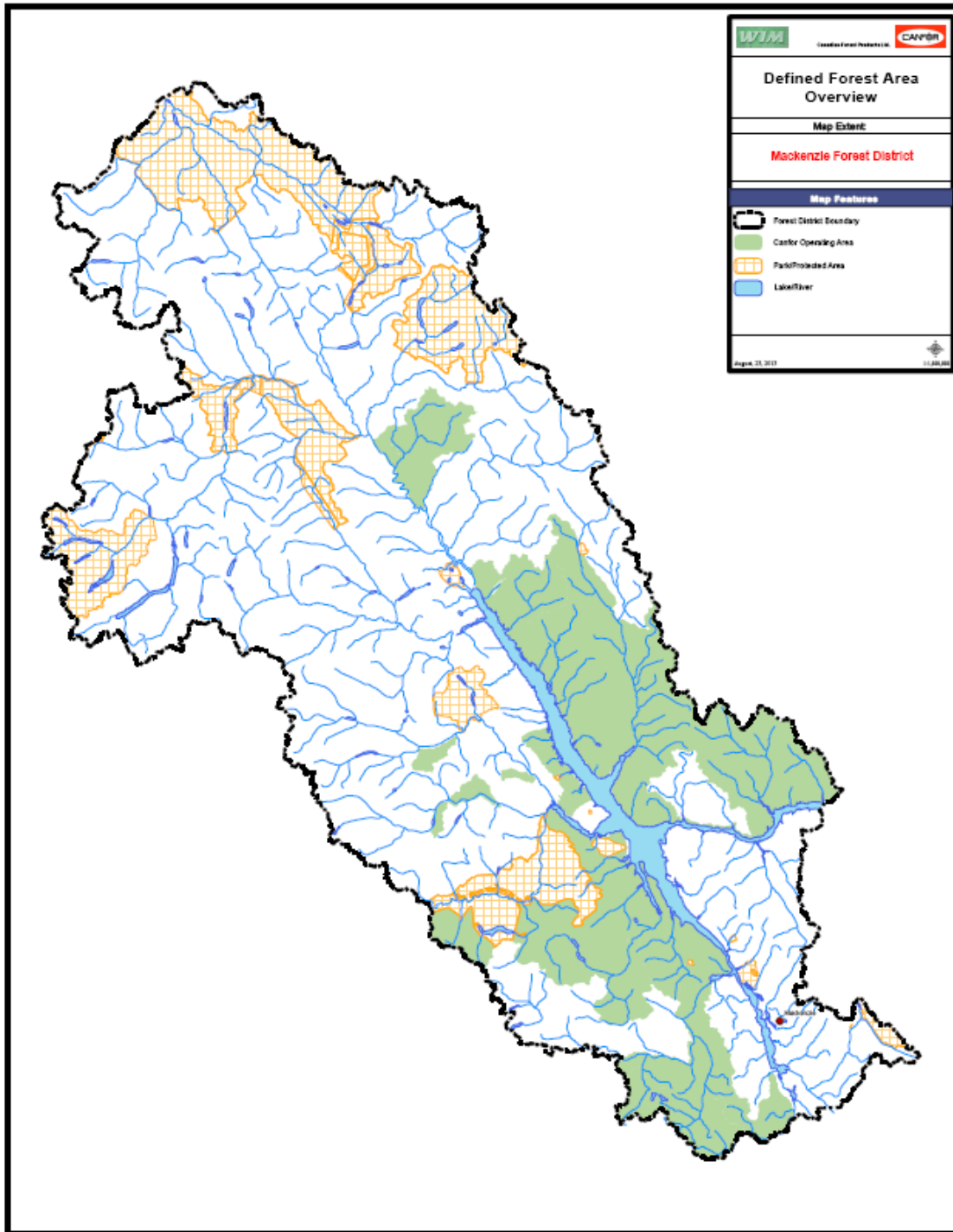
Public Advisory Group
Mackenzie SFMP Steering Committee

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 Nations²
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

² This sector is open to allow participation of any First Nations person wishing to contribute



Mackenzie SFMP



PAG Schedule of Completed Meetings

Date	Time	Key Agenda Items
June 4, 2014	10:30 AM – 2:30 PM	<ul style="list-style-type: none">- Mill tour- Terms of Reference Review- SFMP Updates
Dec 3, 2014	10:00 AM – 2:00 PM	<ul style="list-style-type: none">- Invasive Plants presentation- 2012-13 Annual Report Result- Timing of Burning Indicator proposal- Protection Aspen leave trees- Update on Canfor activities- Mackenzie AAC determination
Mar 25, 2015	10:30 AM – 2:30 PM	<ul style="list-style-type: none">- Visual quality management presentation- Updates to the SFMP- Audit results



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)

Date	PAG members present	Quorum required
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	3	3
March 19, 2014	8	3
June 4, 2014	7	3
Dec 3, 2014	5	3
March 25, 2015	3	3



Mackenzie SFMP



PAG Meeting

June 4, 2014

10:00 AM – 2:00 PM

Boardroom –

Canfor Mackenzie Sawmill Office

1801 Mill Road

Agenda

1. Welcome and Introductions
2. Review Agenda
3. Evaluation Results (March 19, 2014)
4. Review and Approve Meeting Summary – March 19, 2014
5. Review of PAG Terms of Reference – Jason Neumeyer, Planning Forester (Canfor)
6. Review and finalize SFMP updates – Jason Neumeyer
7. Other business
8. 2014 field tour ideas
- ~ Lunch ~ (12:00 – 12:45)
9. Canfor Mackenzie sawmill Tour
10. Evaluation forms
11. Next PAG meeting:
 - a. TBD

June 4, 2014

Mackenzie PAG
CanFor Woodlands
office

Sign in Sheet

NAME	Affiliation	PAG Role
Ji Lambie	Environment (MNO)	member
John Lambie	MNO	observer
Justin Keutzer	MLIB	Member
Pat Crook	District of Mackenzie	
Alec Chingee	MLIB	Member
LAWRENCE NAPIER	BC TRAPPERS	MEMBER
RON Crosby	Woodlots	member
Chris Bailey	SCRIBE	SCRIBE
Al Wieraszko	Floods	Floods
Lyle Montenson	HRFN	Member (new)
Jason Neumeier	CanFor	



Meeting Summary

Attendance:

<i>Public Advisory Group:</i> Ron Crosby Alec Chingee Justin Keutzer Lawrence Napier Vi Lambie Lyle Mortenson Pat Crook	<i>Steering Committee & Advisors:</i> Jason Neumeyer - Canfor
<i>Facilitator & Scribe:</i> Al Wiensczyk (TCC Solutions) Chris Bailey	<i>Observers/Guests:</i> John Lambie

1) Welcome & Introductions

- a) Members signed in.
- b) Welcome by the Chair of the Steering Committee [Jason Neumeyer].
 - i) New PAG member – Lyle Mortenson – Halfway River First Nation

2) Confirmed agenda

- a) Agenda accepted as written.

3) Evaluation results for March 19, 2014.

- i) The meeting evaluation from the last meeting was not presented and will be emailed to the PAG.

4) Summary of the March 19, 2014 Meeting.

- a) Summary of the March 19, 2014 meeting accepted as written.

5) Review Action Items from the March 19, 2014 Meeting

- a) Jason Neumeyer review the action items (see Item 15 – Action Item Table).

6) Review of Mackenzie PAG Terms of Reference (ToR) [Jason Neumeyer]

- a) Wiensczyk reviewed the changes\updates to the ToR.

- PAG Comments: Enlarge the font in the legend on the operating area map in the SMFP ToR (see Action Item June 4 – 05).

7) Review of SFMP and appendices updates [Jason Neumeyer]

- Appendix A: Was the ToR document and since there is a stand alone ToR, it was suggested that it be removed from the document.
- Appendix B: A listing of the different groups\sectors of the PAG. List has been updated to include new representatives and the removal of old ones.
 - o Saulteau and MacLeod Lake – Mackenzie COMFOR reps\sections will need to be updated
- Appendix C: Remove the references to BCTS. Will continue to update with Canfor's strategies over time.
- Appendix D: No changes
- Appendix E: Maps. Removed the BCTS references that may change the boundaries of the DFA.
- Appendix F: Indicator matrix has had many updates and this appendix has been used to track the evolution of the indicators.
- Appendix G: Glossary of Terms. Going to be left as is with a possible annual review for updates.

8) Other Business

a) Timing of pile burning [Justin Keutzer]

- In early February furbearers choose their breeding den sites and for a period after they are born, the young are restricted to the den sites. On-block piles are a favoured denning site. Family groups will use the piles until approximately the end of April.
- It was suggested that if pile burning is to occur on harvested blocks that it be completed by January so as not to interfere with furbearer breeding den sites and habitats. This could be included in a strategy that would give a specific window for burning piles (May-January).
- The PAG is suggesting that a timing window and pile retaining strategy should be incorporated into the SFMP.
- Canfor provided a hand out with their debris piling specification (see attached). Canfor Mackenzie operations current practice is to process at the stump. They have only one contractor doing traditional roadside piling and there are occasions where modifications are required to scattered debris for planting. Most pile burning is completed in October or November each year.

9) 2014 Field tour ideas

- The PAG proposed to have the field tour in September. Suggested topics include the following:
 - o Piles
 - o Retention strategies
 - o High elevation blocks
 - o Rare ecosystems
 - o Invasive plants
 - o Protection for minerals licks and bird nests.

10) Canfor Mackenzie Sawmill tour

- The PAG went on a tour of the Canfor Mackenzie sawmill. The facility has been recently updated to include modernized sawing equipment to optimize the lumber recoveries from the variety of different log qualities.

11) Other Business

General PAG Discussion Items:

A brief point made about a research project which indicated that leaving moats\ditches around piles was beneficial for habitat enhancement for wildlife and water supply. However, could be costly.

Wildlife tree patch (WTP) locations and species considerations. Canfor has criteria for designing and locating WTP's. There are some challenges. An example is along small streams where there is a reserve and a management zones. Canfor has been leaving more timber in the management areas to help protect more of the riparian areas.

Q: Are deciduous species used for leave trees?

A: Yes.

Q: Are they protected from herbicide applications later?

A: Yes they are protected from aerial spraying if they are in a clump of three or more. However, if they are single stems are scattered across the block then there is no special considerations when doing aerial herbicide applications.

A: Do you track invasive plants?

Q: Yes there is a section in the FSP to deal with invasive plants through an approved seed mixture for rehabilitation areas. Currently, unsure where this may exist in the Mackenzie SFMP. Canfor has a policy for washing vehicles when travelling between regions.

12) Actions updated

See Action Table Item #15

13) PAG Meeting Feedback (PAG questionnaire):

14) Next meeting:

Field tour in September

Next indoor meeting date to be determined (November 2014)

10:00 AM – 4:00 PM

Mackenzie Recreation Centre – Conference Room (2nd Floor)

15) Actions

ID#	ACTION	WHO	DEADLINE	STATUS
April 29-03	Work with PAG representatives and others in the community to find new/replacement PAG representatives.	Licensee Steering Committee	Next Meeting	Ongoing
June 19 – 01	Distribute the draft 2011-12 Annual Report to the PAG.	Licensee Steering Committee	Next meeting	Complete
Mar 27 – 01	Note in the Annual Report if any boundary changes occurred to established OGMA's, and add this reporting requirement to the indicator detail sheet for Indicator 3 in the SFM Plan.	Licensee Steering Committee	Next meeting	Complete
Mar 27 – 02	Revise the indicator detail sheet for Indicator # 4 to include roads in the definition of "logged".	Licensee Steering Committee	Next meeting	Complete
Mar 19 -01	Provide the PAG with a list\map of the rare ecosystems	Licensee Steering Committee	Next meeting	Complete
Mar 19 -02	Post the CWD survey to the website and advise the PAG	Licensee Steering Committee	Next meeting	Ongoing
Mar 19 -03	Canfor to provide PAG with the guidance specifications they use with their contractors for piling	Licensee Steering Committee	Next meeting	Complete

Mackenzie SFMP PAG Meeting Summary – June 4, 2014

ID#	ACTION	WHO	DEADLINE	STATUS
Mar 19 -04	Circulate the updated SFMP and ToR for the PAG to review (ToR sent out but not SFMP updated have not included)	Licensee Steering Committee\ Facilitator	Next meeting	Ongoing
Mar 19 -05	Add parks and the Mackenzie COMFOR to the updated maps	Licensee Steering Committee	Next meeting	
Mar 19 -06	Provide the PAG with any SFMP updates in advance of the meetings so they can be reviewed and discussed.	Licensee Steering Committee\ Facilitator	Ongoing	
Mar 19 -07	PAG to provide the facilitator ideas and/or agenda topics for the field tour	PAG	April 4, 2014	Complete
Jun 4 – 01	Updates for the PAG Member List\Representative List (Appendix B)	PAG	Ongoing	
Jun 4 – 02	Add the McLeod Lake Mackenzie Community forest to the current membership list.	Licensee Steering Committee & Facilitator	Next Meeting	
Jun 4 – 03	Policy for aspen leave trees to SFMP for PAG.	Licensee Steering Committee	Next Meeting	
Jun 4 – 04	Send out a paper copy of the marked up SMFP Appendices to membership	Facilitator	Next Meeting	
Jun 4 – 05	Enlarge font in the legend of the operating area map in the SFMP ToR before the document is finalized and distributed.	Licensee Steering Committee & Facilitator	Next Meeting	
Jun 4 – 06	Provide new\updated information for the current species list in Appendix C (Cape May wobblers has been updated on the list) PAG to the facilitator and the licensee steering committee.	PAG	Next Meeting	
Jun 4 – 07	Review the current DFA boundaries with the removal of BCTS (Appendix E) and circulate a draft map to the PAG.	Licensee Steering Committee	Next Meeting	
Jun 4 – 08	To make SFMP Appendices available on the website as a draft before the next meeting.	Licensee Steering Committee and Facilitator	Next Meeting	
Jun 4 – 09	Review and update Appendix G – Glossary of Terms and circulate to PAG.	Licensee Steering Committee and Facilitator	Next Meeting	
Jun 4 – 10	Develop a proposed indicator for pile burning.	Licensee Steering Committee	Next Meeting	
Jun 4 – 11	Choose a September date for the field tour and notify the PAG.	Licensee Steering Committee and Facilitator	July 2014	

Mackenzie SFMP PAG Meeting Summary – June 4, 2014

ID#	ACTION	WHO	DEADLINE	STATUS
Jun 4 - 12	Invite a guest speaker to the next PAG to discuss Invasive Plants	Licensee Steering Committee and Facilitator	Next Meeting	
Jun 4 – 13	Guidelines for protecting aspen leave trees from aerial herbicide spraying.	Licensee Steering Committee	Next Meeting	
Jun 4 – 14	Email PAG evaluation results to PAG members	Facilitator	June 2014	Complete



Forest Management Group

Debris Piling Specifications

- 1) Locate piles:
 - a) Outside Riparian areas,
 - b) Outside road ditches, and not within 5m of a culvert,
 - c) More than 20m from the block boundary, reserve patches and designated leave trees, where reasonable,
 - d) On Right of Ways as far away from the timbered edge as possible and far off the road as possible
- 2) Debris pile minimum height is 3 meters, and is 1.5 times higher than wide.
- 3) Create a 5m "fuel break" on all sides of piles that is substantially free of logging debris, but not down to mineral soil.
- 4) Break and place reject logs, and longer pieces into the middle of the piles so the pieces do not stick out of the pile.
- 5) Do NOT:
 - a) Place road strippings, dirt, stumps or duff in the debris piles.
 - b) Damage designated leave trees.
- 6) When piling is complete soil disturbance must not exceed limits for roadside work area specified in the Site Plan, usually 25 %.



Mackenzie SFMP



PAG Meeting

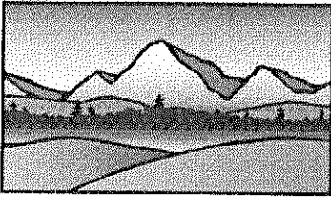
Dec 3, 2014

10:00 AM – 2:00 PM

Mackenzie Recreation Centre

Agenda

1. Welcome and Introductions
2. Review Agenda
3. Review and Approve Meeting Summary – June 4, 2014
4. Evaluation Results (June 4, 2014)
5. Invasive Plants in the Northwest – Andrea Eastham (Northwest Invasive Plant Council)
6. 2013/14 Annual Report - Jason Neumeyer, Planning Forester (Canfor)
7. Proposed indicator for timing of burning – Jason Neumeyer
- ~ Lunch ~ (12:00 – 12:45)*
8. Guideline for protecting aspen leave trees – Jason Neumeyer
9. Update on Canfor's activities – Jason Neumeyer
10. Mackenzie TSA Annual Allowable Cut determination discussion – Jason Neumeyer
11. Update previous actions – Jason Neumeyer and Al Wiensczyk
12. Evaluation forms
13. Next PAG meeting:
 - a. TBD



Mackenzie SFMP



PAG Meeting
December 3, 2014
Mackenzie, BC

NAME (Please Print)	SIGNATURE	PAG Rep / Alt Observer SC / Advisor
LAWRENCE NAPIER	<i>[Signature]</i>	REP.
Vi LAMBIE	<i>[Signature]</i>	PAG rep
C Milne	<i>[Signature]</i>	noter
All Wipensick	<i>[Signature]</i>	facilitator
Galena Trainor	<i>[Signature]</i>	Nootel
Kurtis Trainor	<i>[Signature]</i>	"
Janet Besheer	<i>[Signature]</i>	"
SIM BESHERRSE	<i>[Signature]</i>	"
Jason Neumeyer	<i>[Signature]</i>	Canfor
Walter ALPSEA	<i>[Signature]</i>	WMFN
George Desjarlais	<i>[Signature]</i>	WMFN



Members Present: George Desjarlais, Vi Lambie, Jim Besherse, Janet Besherse, Lawrence Napier
Absent: Dave Forshaw, Stephanie Killam, Ron Crosby, Justin Keutzer, Michael Freer, Ryan Bichon, Alec Chingee, Lyle Mortenson
Ex-Officio Members: Jason Neumeyer, Sara Carter
Present:
Advisors/Guests: Galena Trainor, Kurtis Trainor, Walter Allison, Andrea Eastham (NWIPC)
Chair: N/A
Faciliator: Alan Wiensczyk
Scribe: Tanya Milner
Quorum Present: Yes: No:

1.0 Welcome and Introductions:

- Members signed in.

2.0 Review of Agenda for this Meeting:

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

3.0 Minutes of Previous Meeting:

- Minutes from Mackenzie meeting reviewed (June 4, 2014).
- Motion to accept the minutes as written.
- Minutes accepted.

4.0 PAG Satisfaction Survey Results:

- The results of the PAG satisfaction survey from the June 4th meeting were presented.
- Facilitator indicated that the evaluations are an important feedback mechanism for the Licencee team and facilitator and help to improve the process.

5.0 Invasive Plants: Andrea Eastham

- Invasive Alien Plants (IAP) are not native to North America. They come from Europe and Asia and do not allow for succession of native plants.
- Most rare plant species lost have been due to IAPs.
- 3 Areas of Impacts:
 - Environmental – loss of native grasses, wildflowers, and endangered species destroyed.
 - Economic – Forestry, agriculture, utilities and transport, recreation and tourism are impacted by IAPs due to the cost of mitigating and implementing treatment programs.
 - Human and Animal – some IAPs are toxic to animals and humans.
- 17 Regional Weed Committees: Invasive Species Council of BC provides coordination between them (see brochure handout).
- Invasive plants are spread by humans, animals, and machinery. It is important for companies to have Best Management Practices (BMPs) in place to deal with invasive plants, i.e. wash machinery, boots, trucks and ATV's before moving to next location.
- When buying seed ask for the Weed Analysis sheet before you purchase.
- Most invasive aquatic plants and fish have come from people dumping aquariums into waterways.



- PAG asked where they would find the Species at Risk list. Guest noted they can look at the website for the red and blue listed species.
- The Weed Act is currently being reworded.
- The Northwest Invasive Plant Council (NWIPC) (www.nwipc.org):
 - Nonprofit society with a board of directors.
 - Approximately 785 members.
 - 2 First Nation partnerships.
 - Covers approximately 40 000 ha.
 - The goal is to prevent the spread of invasive plants in Northwest BC.
 - There are 8 IP area managers (IMPAs). Mackenzie is in the Prince George IMPA.
 - The annual program is approved by the members, and the 8 IMPA managers and their crews go out and do inventory and treatment.
- 4 Ways to Report:
 - 1-866- 44WEEDS
 - NWIPC.org or email info@nwipc.org
 - Report a Weed BC www.reportaweedbc.ca
 - Report a Weed Phone App.
- PAG asked if there were pictures of aquatic plants in the brochure. Guest noted no, but the website has pictures.
- PAG noted they saw a plant they have never seen before along the logging road. Member thought logging equipment may have brought the plant in.
- Guest noted to PAG member to take a picture and submit it on the Report A Weed website, or send them a sample.
- If PAG members just learn the following 2 plants, it would be great!
 - Common Tansy and Spotted Knapweed

6.0 Twin Sisters Native Plant nursery: George Desjarlais

- A joint venture project with the Saulteau and West Moberly First Nations.
- Opened in 2013.
- Oil and Gas industry and the community of Chetwynd involved.
- The nursery has numerous contracts with forestry, industry, and government groups. The nursery grows native plants to northern BC i.e. wildflowers, trees, shrubs, berry plants etc. They have one area of the nursery that grows Rocky Mtn Maple.
- They also grow traditional medical plants.
- They pick and sow the seed.
- They have hired 22 people from the local community.

7.0 2013/2014 Annual Report: Jason Neumeyer

- The report is in Draft form. They are late getting the report completed. The reporting period is from April 1, 2013 – March 31, 2014.
- Opportunity for PAG to review the draft version, submit comments, and Canfor will finalise the report and have it ready for the auditor in 2015.
- **Action Item 1:** AI to send the draft report to the PAG members for their review. **Deadline for comment submission is December 31, 2014 – early Jan, 2015.** Send comments to AI.



- 48 indicators in the Mackenzie SFMP:
 - Objectives met for 43 indicators; Pending status for 4; and Target not met for 1.
 - Results Pending Indicators:
 - # 1 Old Forests - % of blocks that are within LU/BEC groups that meet prescribe Old Growth targets.
 - # 2 Interior Forest -% of blocks that are within LU/BEC groups that meet prescribed Interior Old targets.
 - # 5 Patch Size - % of blocks harvested that meet prescribed patch size target ranges or are trending towards the target ranges.
 - # 25 Harvest Volume - Actual harvest volume compared to the apportionment across the Defined Forest Area (DFA) over each 5 year cut control period.
 - LT noted in 2013, they were slightly under their Annual Allowable Cut (AAC), and for 2014, they are projected to be slightly above the AAC because they are harvesting volume closer to town.
 - 3 indicators not met in previous years (2012/2013) and corrective actions (CA) taken:
 - # 4 Productive Forest Representation –Total ha logged in rare and unproductive ecosystems. CA - Have more measures in place to avoid these rare ecosystems.
 - # 8 Riparian Area Management Effectiveness - % of forest operations consistent with riparian management area requirements as indicated in operational plans and or site plans. CA – Improved training and monitoring.
 - # 25 Harvest Volume – Actual harvest volume compared to the apportionment across the DFA over each 5-year cut control period. No action – The reporting out is on a 5 years basis and because the sawmill had taken down time during the reporting period, they are not able to catch up and report out on.
 - Indicators not met:
 - #10 Stream Crossings - % of stream crossings appropriately designed and properly installed and or removed.
 - LT noted 2 instances where bridges were removed improperly during the winter on inblock roads. This resulted in sedimentation runoff into the stream during the spring due to inadequate erosion controls measure taken when the bridge was originally removed. Action plans were implemented to redo and improve erosion control in the spring and work was completed.
 - Only 2 out of the 34 bridges were not well done, resulting in a 94% accuracy reporting out on, but in the plan they have a 100% target.
- PAG asked if Canfor reports out on the type of seed they use.
- LT noted they use a blend of seed developed specifically for the forest industry and the seed type they use is heavily scrutinized by the auditors. During application, they apply a thick layer to help smoother out the invasive plants.
- PAG noted instead of putting the bridge to just cover the span to the edges of the creek they should make it longer.



- LT said it was a large bridge (9 ft span) and it was the erosion control i.e. cross ditches that contributed to the sedimentation.

8.0 Proposed Indicator for Timing of Burning: Jason Neumeyer

- New Indicator: Brought up at the June meeting by a PAG member.
- Background: A PAG member identified burning debris piles can have an impact on Pine Marten habitat. PAG member said the marten were using the piles for breeding sites, and suggested Canfor have a pile burning timing window. PAG member wanted to develop a new indicator to measure this.
- LT noted there is not a lot of data on Pine Marten utilizing debris piles.
- LT noted they could manage this indicator through existing Indicator # 14 “Species within the DFA” in the Sustainable Forest Management Plan and through Canfor’s FMG East Debris Burning Management System.
- LT proposed to add the following wording to the BMS document “...**no piles to be ignited after January 31st**”. Refer to Canfor FMG East Debris Burning Management System document page 6
- LT noted they typically burn from Oct – Nov. They do not want the liability risk of lighting up piles in late winter and having them reignite in the spring.
- PAG asked if there were any studies on chipping the debris versus burning.
- LT said there is significant amount of debris left behind on blocks since they have gone to cut to length system. Since pulp prices are good, for those blocks close to town, they haul a fairly high component of slash to town to chip or they chip on site.
- Guest noted she was involved in a research project where they found leachates from the wood chips left on site is toxic to fish. Leaving wood chips is not the natural way for wood debris to decompose and wood chips have no wildlife value.
- PAG member would like it if there were small debris piles spread out on the block for marten to use.
- LT asked the PAG if they agree to manage Justin’s concern through existing indicator # 14.
- PAG agreed, as long as Canfor does not lose track as to why the Jan 31st date is in the plan.
- LT agreed, and he will include a comment in the plan as to why the Jan 31st date is there.
- **Action Item 2:** AI to send revised FMG East Debris Burning Management System document to the PAG.
- Motion to change the indicator wording as presented.

PAG vote: All in favour – motion carried.

9.0 Guidance for Protecting Aspen Leave Trees: Jason Neumeyer

- Canfor has no specific guidance for leaving Aspen (At) as leave trees.
- In the silviculture side of operations there is the Pest Management Plan (PMP) to deal with aspen, but it has no real defined direction. Section 2.3.6 “Selection of Treatment Methods” indicate the following treatments: Brushing or Herbicide. Canfor’s major treatment method is brushing. The PMP is only applicable to the south part of the District. Canfor only treats a small area with



herbicide.

- LT noted when they herbicide they avoid treating mature standing aspen trees and target the smaller younger aspen stems.
- Canfor does not utilize deciduous species.
- At the harvesting phase they try and leave as many aspen standing on the block (in patches or along the boundaries). If the trees are impeding harvesting operations, they can be cut down i.e. along landings, roads, skid trails etc.
- Specifications are put into the site plan to deal with deciduous and non-merchantable trees.
- PAG asked if they leave deciduous snags.
- LT noted they do leave both deciduous and conifer snags where possible, however, problems can occur when the tree planters have to go onto these blocks, and the trees may pose a hazard.
- Under WorkSafe BC requirements it is challenging to leave aspen as leave trees as they can pose a hazard to the workers.
- LT noted harvesting operators take the danger tree assessment training and they can make the call as necessary on the block to cut or leave aspen.
- PAG wanted to know what happens if there is a flicker in the snag.
- LT noted the operator is to back off the tree and not cut it down.
- PAG wanted to know how this works for a designated wildlife tree.
- LT note the tree itself is not designated but the area is.
- PAG asked when they cruise blocks how do they address CMTs.
- LT said all crews are trained on how to identify CMTs, and if they find a CMT they take a GPS of the spot and mark it on the map. They will follow up with an archeologist, who contacts the First Nations, and does a more detailed assessment. They may put a buffer area around the tree and/or top the tree 3-4 m above the scar. Some CMTs are protected as archeology sites but most are not protected.
- LT noted they also do information sharing with local First Nations as well.
- PAG asked how they identify CMTs post 1846. PAG noted many of these trees have spiritual purposes and a First Nations person can come out and identify the tree for spiritual purposes. PAG said the ashes of the dead are buried by these trees.
- PAG noted the 1846 date is an American date. First Nations were here before 1846.
- PAG noted they gave a map to Canfor of their Keyoh showing their specific areas.
- LT noted before the permitting forester writes any management plans into the plan, they send letters out to First Nations asking for input on the management strategies.
- PAG member said it is better they talk to them versus talking to the band. The member noted the band does not speak for them.



- LT noted he is in discussion with the member's family group, however, their obligation is to discuss with the band.

10.0 Update Previous Actions: Jason Neumeyer and Al Wiensczyk

- This is a new topic for the PAG.
- Map of Canfor's 2015 Winter/Summer Planned Blocks on display for the PAG to view.
 - LT noted they are cleaning up the last bits of Phillips, Rupert and Holder areas and operations are moving to the more northern areas. They are working with a trapper in the northern area to work around his trapping schedule.
 - A lot of winter logging in the Nation (north of the Mason River) and Donna creek area.
 - Summer 2015 they will be logging in the Germansen area.
- LT asked the PAG if they are interested in hearing about the harvesting schedule.
- PAG found the information interesting and would like the LT to continue with the updates.

11.0 Update on TSA: Jason Neumeyer

- The Mackenzie TSR is completed and was released on November 14, 2014.
- The TSR was last done in 2001, however, it is legislated now to do a TSR every 10 years or as required.
- The review identified a lot of pine that is dying or dead, and increased the amount of pine to cut to address the issue.
- Two levels of partitions: non-pine and non-pine in a specified area (300,000 m³/yr allowed to be harvested over a 10 year period). Canfor has planned to harvest 300,000 m³/yr in this area, but they have to take into consideration of other licensees in the area as well.
- They are in a transition zone for the first 1 - 2 years where they will cut more spruce because they already have these blocks laid out, and then they will move onto the pine in year 3 - 5.
- PAG asked where BCTS fits into this. LT said they do not know what BCTS will do.
- LT noted since the 2008 partition came into place in the PG TSA, all the licensees and non-replaceable licensees have worked together to find out who has non-pine and pine, and did some trading of dead and green wood to help each other out.

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:

- Spring 2014

Action Summary:

- Action Item 1: Al to send the draft report to the PAG members for their review. Deadline for comment submission is December 31, 2014 – early Jan, 2015. Send comments to Al.
- Action Item 2: Al to send FMG East Debris Burning Management System document to the PAG.



Mackenzie SFMP



PAG Meeting

March 25, 2015

10:30 AM – 2:30 PM

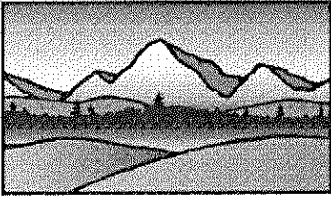
Mackenzie Recreation Centre

Agenda

1. Welcome and Introductions
2. Review Agenda
3. Review and Approve Meeting Summary – December 3, 2014
4. Evaluation Results (December 3, 2014)
5. Managing for Visual Quality in the Mackenzie DFA – Carmen Agustine, Permitting Forester (Canfor) and Craig Birk, GIS specialist (Canfor).
6. 2013/14 Annual Report – update on 'pending' indicators - Jason Neumeyer

~ Lunch ~ (12:00 – 12:45)

7. Sustainable Forest Management Plan editorial updates – Jason Neumeyer, Planning Forester (Canfor) and Al Wiensczyk (TCC Solutions)
8. Internal and External Audit findings – Jason Neumeyer
9. Update on Canfor's activities and plan for spring start-up – Jason Neumeyer
10. Update previous actions – Jason Neumeyer and Al Wiensczyk
11. Evaluation forms
12. Next PAG meeting:
 - a. TBD



Mackenzie SFMP



PAG Meeting

March 25, 2015

Mackenzie, BC

NAME (Please Print)	SIGNATURE	PAG Rep / Alt Observer SC / Advisor
Dl Wipaszczuk		Facilitator
Loren Spletzer		scribe
LAWRENCE NAPIER		REP
JASON NEUMEYER	Canfor	
Carmen Augustie	Canfor	
Vi Lambre	Vi Lambre	REP
Craig Birk	Can - CANFOR	
Cornelia Thani		observer
Row Crosby		wood lot
PETER WEBER		District



Members Present: Vi Lambie, Ron Crosby, Lawrence Napier
Absent: Janet Besherse, Jim Besherse, George Desjarlais, Dave Forshaw, Stephanie Killam, Ron Crosby, Justin Keutzer, Michael Freer, Lyle Mortenson
Ex-Officio Members: Jason Neumeyer
Advisors/Guests: Carmen Augustine, Craig Birk, Cornelia Thomi, Peter Weeber
Chair: N/A
Facilitator: Alan Wiensczyk
Scribe: Loni Spletzer
Quorum Present: Yes: No:

1.0 **Welcome and Introductions:**

- Members signed in and guests welcomed.

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 reviewed (Dec 3, 2015).
- Motion to accept the minutes as written.
- Minutes accepted.

4.0 **PAG Satisfaction Survey Results:**

- The results of the PAG Satisfaction Survey from the Dec 3rd meeting were presented.
- All above targets except for Question A8 re: participation: *“Were most PAG members involved in the meeting?”*
- PAG members noted that the interpretation of this question pertained to not having enough members present at meetings therefore not enough participation rather than a lack of opportunities for members to speak. Facilitator clarified that the intent of this question is whether the members present at the meetings feel they are given adequate opportunities to participate in the discussion.
- Suggestion from PAG member to reword the question so that the intent is clear.
- **Action Item: Facilitator to discuss with LT**

5.0 **Managing for Visual Quality in the Mackenzie DFA:** Carmen Augustine, Permitting Forester (Canfor) and Craig Birk, GIS Specialist (Canfor)

- Reviewed visual polygons/Visual Quality Objectives (VQO's)
- Reviewed 5 categories of visually altered landscapes and VQO's
 - Changes have been recently made to alteration numbers (have moved from using % to classifying according to size (S, M, L).
- Reviewed Canfor's process of managing for Visual Objectives
- Reviewed Canfor's challenges for managing for Visual Objectives
- Reviewed Manson Creek Case Study – partial retention polygon



5.0 Managing for Visual Quality in the Mackenzie DFA cont'd:

Discussion:

- PAG member noted that “good visuals” can be subjective and wondered if local residents that are impacted are given opportunities for input? LT gave the example of residents from Manson Creek’s involvement in planning for acceptable visuals and tree retention as it relates to visual objectives in their area.
- PAG member added that it is good to get this kind of community input proactively, where possible, to avoid conflict later on.
- PAG member asked about potential for blowdown of trees left standing. LT responded that it is not normally an issue and if it did occur it is usually near roads. PAG member noted that it may end up as CWD if it occurs in the block anyway.
- PAG member asked from what angles of the landform are the VQO’s planned? LT responded that they are taken as seen from the ground not from other heights (birds-eye view) or vantage points.
- PAG member asked about sightlines off of Wolverine Lake. LT responded that blocks will be partially visible from lake, but not from the recreation site.
- PAG asked about the costs of doing VQO’s in-house vs contracting out for this service. LT said it is significantly less expensive for Canfor staff to do this in-house.

6.0 2013/2014 Canfor Annual Report (update on ‘pending’ indicators): Jason Neumeyer

- Analysis for 1 Old Forest and 2 Interior Forest was done incorrectly (used Timber Harvesting Landbase instead of Crown Forest Landbase data).
- Data must be redone (estimated completion in early April 2015)
- Reviewed Patch Analysis – patch size targets were met or tending towards being met in all of the landscape units. Patch is defined as “from freshly logged to 20 years of growth” so it is a very dynamic and ever-changing analysis.

Discussion:

- PAG member asked about pine beetle infestation in the stands. LT responded that in free growing stands it would be government responsibility to deal with the infestation by utilizing funding through Forests for Tomorrow (FFT). This would involve using multiple strategies - from growing under infected trees to the complete removal of infected trees and subsequent replanting. PAG member wondered about the patch size analysis and target if an infestation occurs right next to a planned patch? LT responded that if that occurs then it is included in that patch for the patch size analysis.

7.0 Sustainable Forest Management Plan editorial updates: Jason Neumeyer / Al Wiensczyk

- There have been updates made to the SMFP including changes to formatting (re-ordering) of the indicators to line up with the CSA standard and additionally align with other Canfor SFM Plan’s. Indicator statements and targets have not been changed.



7.0 Sustainable Forest Management Plan editorial updates cont'd:

- PAG members and guests were directed to a Summary of these changes that was distributed separately. PAG members were asked to direct any further questions to the Facilitator or LT by next PAG meeting.

Action Item: PAG Members to review the changes to the SFMP and if they have any questions or comments to contact the Facilitator or LT by the next PAG meeting.

7.0a Sustainable Forest Management Plan website

- The Facilitator informed the PAG members that the SFMP website has been updated: www.sfmngtsa.com/
- Format of the website has been changed to make it easier to find the PAG Terms of Reference, the SFMP, annual reports and meeting minutes, etc.

8.0 Internal and External Audit findings: Jason Neumeyer

- Reviewed Mackenzie 2015 Audit Summary
- Reviewed terms non-conformance (a breakdown of a process within the system) vs non-compliance (falling short of regulations)
- **Internal:**
 - 1 minor non-conformance – re: fuel management – one truck did not have a spill kit in the back for a tidy tank (a tank filled with diesel)
 - 5 opportunities for improvement – post harvest visual impact assessment (as described in today's presentation on VIA/VQO's), bridge assurance document update, periodic inspections of FMS requirements, adding SFM annual report to www.pgtsasfm.com/ website, wildlife tree patch (WTP) management
 - Best Practices
 - Commendable level of detail in visual impact assessments (VIA's) and communication with Germanson Community in regards to visuals
 - 2014 Contractor Training Binder/USB allows an efficient means to communicate additional FMS training to new staff (ex. illustrations of CWD, documents on road building, ribbon standards, soil disturbance, etc.).
- **External:**
 - Closed off/Completed 7 of 9 previous findings. Two pending:
 - OFI - re: CWB indicator is weak (this is currently still at government minimum)
 - OFI - re: Camp Standard Work Procedure updates – corporate concern
 - 1 minor non-conformance – re: tracking action items from Camp inspections
 - 9 opportunities for improvement
 - Risk assessment for other licensees operating in the DFA (solution is to work out as



part of a group process – ex. all groups in the Mackenzie TFSA)

- Nov 2014 Timber Supply Review impacts on SFM plan
 - Opportunity to improve the use and function of incident tracking system
 - Current status of pending indicators in 2013/14 annual report
 - Fuel management weaknesses – missing two diesel fuel stickers and one less-than-ideal fuel tank tie-down
 - Weakness in communication and tracking of communication (First Nation and pesticide use and follow-up)
 - Williston transporter (world's largest inland ice-breaker) – need to identify where its operations fit within Canfor FMS/Chain Of Custody systems
 - Government fuel tank at Canfor's Camp (Munro), no inspections for the tank
 - PEFC Chain of Custody training requirement not met for one shipping staff member.
- Best Practices
 - High level of competence with applicable regulatory requirements
 - Mackenzie PAG continues to have good representation from local First Nations groups relative to other PAGs.
 - Annual report noted a regen delay of 1.5 yrs for planted blocks vs a target of 4.
 - Practice of mapping mining activities that may have affected site productivity inside Manson Creek blocks is a good practice.
 - Mill personnel, harvesting supervisors and the logging contractor (Duz Cho) supervisor and processor operators have a robust system of communication to ensure delivered log quality is high, also improved wood utilization.

Discussion:

- PAG guest asked about the capacity of wood that the Williston transporter can handle. LT responded 6-7 thousand cubic meters of wood.
- PAG member asked if there is collaboration with mining sector re: logging. LT stated that they are opportunities for open discussion - gave example of discussion with a local miner in the operating area re: potential for mutual benefits of tree removal.

9.0 Update on Canfor's activities and plan for spring start-up: Jason Neumeyer

- Reviewed development activities and harvest plan – Philips area at km 45, Burden, Manson/Germanson, Eckland, Holder, and the Nation Operating Areas.
- Spruce bark beetle has been identified in some areas that will need to be dealt with (trap trees)
- There have been some operating cell trades with Conifex so there are some geographic changes



Discussion:

- PAG asked if spruce bark beetle has affected Conifex areas in the north and wondered also about the blowdown in those areas? LT responded that the government overview flights did not go north of Omineca park. However, there are areas affected by last year’s fires that are of concern and that blowdown of spruce may be a factor influencing bark beetle populations in these areas.
- PAG member asked about whether maximum of 30% of the spruce has to be logged in southwest portion of Mackenzie TSA? LT responded partitions are usually expressed as percentages, but in Mackenzie it is expressed as a cubic meter target. LT said 300,000 cubic meters per year in the southwest portion of the district is the target. In the first year or two it will be high however; the intention is to trend towards target over the next 10 years.
- PAG guest asked about other licensees “playing numbers game” in this regard? LT responded that Canfor’s current strategy is to protect as much spruce as possible now so that it will be available in the future given the anticipated mid-term timber supply fall down.

10.0 Update Previous Actions: Jason Neumeyer / Al Wiensczyk

- **Action 1 – from Dec 3, 2014:** Facilitator sent draft of Annual Report to PAG members for their review. Deadline for comments was Dec 31, 2014 – early Jan 2015.
- **Action 2 – from Dec 3, 2014:** Revised FMG East Debris Burning Management System document still needs to be sent out to PAG members – Facilitator will follow up with LT and distribute to PAG members.

11.0 PAG Meeting Satisfaction Survey for this meeting:

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

12.0 Next PAG meeting Date:

- Summer Field Tour?
- PAG members will receive email updates until next PAG meeting - TBA

Action Summary:

Action Item #	Action Item - Description	Status
Dec 3/14 - 01	Facilitator will send draft Annual Report to PAG members for review. Comment submission due Dec 31, 2014 – early Jan 2015.	Completed
Dec 3/14 - 02	Facilitator will forward revised FMG East Debris Burning Management System document to PAG members	In progress
Mar 25/15 - 01	PAG to review changes to SFMP and direct questions to Facilitator or LT by next meeting	Next Meeting
Mar 25/15 – 02	Facilitator to discuss with LT rewording of evaluation question 8 – PAG meeting participation.	Next Meeting



Public Advisory Group (PAG) Evaluation Form

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)
A. Meeting and PAG Process					
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. PAG Meeting Facilitation:					
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.					
C. Meeting Logistics:					
19. Was the meeting location convenient?					
20. Was the timing of the meeting convenient?					
21. Was the meal provided for the meeting good?					

(Over)



Mackenzie SFMP



Public Advisory Group (PAG) Evaluation Form

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

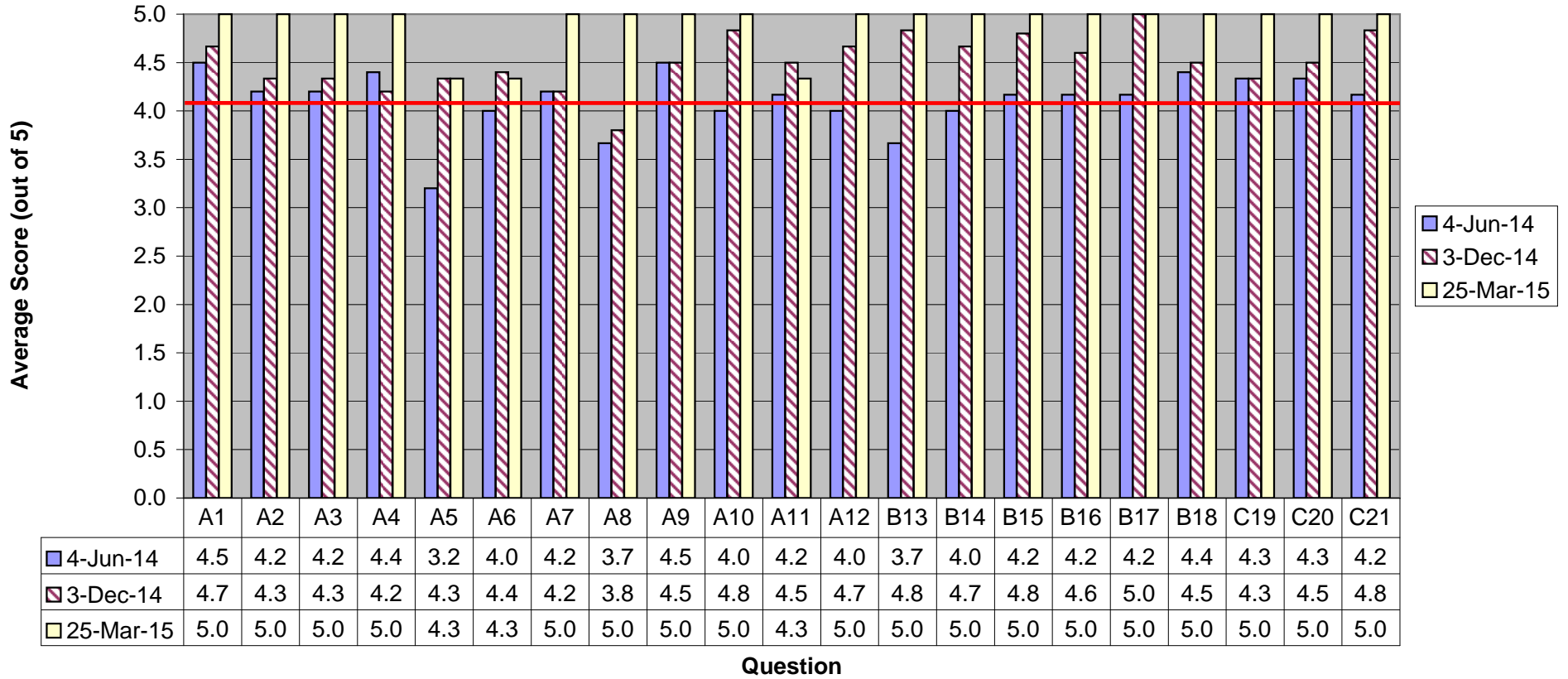
1.

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 or suggestions for speakers:

Mackenzie PAG evaluation Summary - 2014-15





Mackenzie SFMP



PAG member satisfaction survey comments

June 4, 2014

Suggestions for improvements

- 1 Invasive Weeds; Time of meetings

General Comments

- 1 I enjoy coming to these for learning about process of wood product.
- 2 Great tour

December 3, 2014

Suggestions for improvements

- 1 Ya - some good hand outs, and keychains with pictures. Be nice to have extra seating like extra table. Best food yet - keep it up

General Comments

- 1 Meeting was good except for noise by workers outside.

March 25, 2015

Suggestions for improvements

- 1 Need to get more PAG members involved. This is easier said than done.
- 2 Try to get more people involved.
- 3 Those present participated. Not many PAG members present.

General Comments

- 1 The PAG members that were present were all involved



Mackenzie SFMP



Letters of Invitation

During the 2014-15 Fiscal Year there were no:

- Letters of Invitation
- Advertisements and Articles

Mackenzie SFMP Public Advisory Group

(as of March 31, 2015)

Sector:	Representative	Alternate
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	Justin Keutzer
Mining/Oil & Gas	Dave Forshaw	
Noostel Keyoh	Jim Besherse Galena and Kurtis Trainor (Jim's daughter)	Sadie Jarvis
Public Health & Safety		
Recreation – Commercial		
Recreation – Non-commercial		
Recreation – Non-commercial (motorized)		
Saulteau First Nations	Michael Freer	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	alchingee@mlib.ca	General Delivery, McLeod Lake, BC, VOJ 2G0
Bruce Bennett	b-bvent@telus.net	Box 955 300 Oslinka Blvd., Mackenzie, BC VOJ 2C0
Dave Forshaw	dave@district.mackenzie.bc.ca	Box 419, Mackenzie, BC, VoJ 2C0
Don and Sadie Jarvis	sjarvis@xplornet.com	5570 Reed Lake Road, Prince George, BC V2K 5N8
George Desjarlais	forestry@westmo.org	PO Box 90, Moberly Lake, BC, VOC 1X0
Jim and Janet Besherse	Besherse.noostel@outlook.com	General Delivery, Germansen Landing, BC VOJ 1T0
Lawrence Napier	napierlr@hotmail.com	Box 51, Mackenzie, BC, VOJ 2C0
Ron Crosby	crosbyr@cnc.bc.ca	Box 454, Mackenzie, BC VOJ 2C0
Ryan Bichon	rbichon@mlib.ca	General Delivery, McLeod Lake, BC VOJ 2G0
Stephanie Killam	Stephkillam46@gmail.com	Box 762, Rainbow Place, Mackenzie, BC, VoJ 2C0
Galena and Kurtis Trainor	Trainor.noostel@outlook.com	PO Box 28 Germansen Landing, BC VOJ 1T0
Vi Lambie	jlambie@telus.net	PO Box 1598, Mackenzie BC, VOJ 2C0
Lyle Mortenson	lyle@lrm.ca	9133 8 th Street, Dawson Creek, BC V1G 3N5
Justin Keutzer	jkeutzer@mlib.ca	4821 South Access Road, P.O. Box 87, Chetwynd, BC VOC 1J0 P: 250-788-2227
Michael Freer	mfreer@saulteau.com	PO Box 2198 Chetwynd, BC VOC 1J0 1-250-788-7267
Cornelia Thomi	cthomi@forsite.ca	5-600 Mackenzie Blvd. Mackenzie, BC VOJ 2C0 Tel: 1-888-976-0410
Peter Weeber	pweeber@district.mackenzie.bc.ca	Bag 340, 1 Mackenzie Blvd Mackenzie, BC, VOJ 2C0 1.250.997.3221 1.877.997.9940

Correspondence only

Chief Richard Mclean	chief.mclean@tahltan.ca	Box 46, Telegraph Creek, BC, V0J 2W0
Chief Fred Sam	chief@nakazdli.ca	PO Box 1329, Fort St. James, BC V0J 1P0
Chief Roland Willson	rwillson@westmo.org	PO Box 90, Moberly Lake, BC V0C 1X0
Chief Darlene Hunter	dhunter@hrfn.ca	Halfway River First Nation
Daniel Pierre	dpierre@tkdb.ca	
Dave Jeans	r19ddt@telus.net	Box 2220, Mackenzie, BC, V0J 2C0
Elke Lepka	forestry.takla@gmail.com	
Ingo Hinz	Ingo.Hinz@canfor.com	
Judi Vander Maaten	Judi@district.mackenzie.bc.ca	Box 340, 60 Centennial Dr. Mackenzie, BC V0J 2C0
Mel Botrakoff	mel@district.mackenzie.bc.ca	PO Box 340, 1 Mackenzie Blvd., Mackenzie, BC, V0J 2C0
Michael Schneider	michael@going-fishing.com	Box 405, Prince George, BC V2L 4S2
Micheline Snively	msnive@hotmail.com	Box 701, Mackenzie, BC, V0J 2C0
Michelle Gunter	danshellade@hotmail.com	
Mike Broadbent	mrstar58@telus.net	PO Box 398 Osilinka St. Mackenzie, BC V0J 2C0
Nancy Perreault		Bag 24, Germansen Landing, BC - V0J 1T0
Pat Crook	pat@district.mackenzie.bc.ca	
PPWC (Local 18)	ppwc18@persona.ca	PO Box 398 Osilinka St. Mackenzie, BC V0J 2C0
Rob Weaver	weaver00@telus.net	Box 1143, Mackenzie, BC, V0J 2C0
Todd Walter	twalter@bpei.ca	



Mackenzie SFMP



May 20, 2014

To: Mackenzie PAG mailing list

Dear First Name,

The next meeting of the Mackenzie PAG is Wednesday, June 4th, 2014.

Time: 10:30 AM – 2:00 PM

Location: Boardroom - Canfor Mackenzie Sawmill – 1801 Mill Road, Mackenzie.

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

At this meeting we will be conducting a final review and approval of the PAG Terms of Reference and some minor changes to the Sustainable Forest Management Plan and its appendices. We will also be touring the Canfor mill to view their recent up-grades. Lunch will be provided.

Please note the change in location and start time for this meeting.

A draft agenda and the draft summary of the March 19th meeting are attached.

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

From: Alan Wiensczyk

May 21, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Mackenzie PAG meeting - Wednesday June 4, 2014

Hey folks

My apologies for the short notice regarding the upcoming PAG meeting but we needed to confirm that the mill would be able to accommodate us on that day.

The next meeting of the Mackenzie PAG is Wednesday, June 4, 2014.

Time: ****10:30 AM** – 2:00 PM

Location: ****Boardroom – Canfor Mackenzie Sawmill Office – 1801 Mill Road, Mackenzie.**

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

At this meeting we will be conducting a final review and approval of the PAG Terms of Reference (attached) and some minor changes to the Sustainable Forest Management Plan and its appendices. We will also be touring the Canfor mill to view their recent up-grades.

Lunch will be provided.

*****Please note the change in location and start time for this meeting.***

A draft agenda, the draft summary from the March 19th meeting, and the updated Terms of Reference are attached.

Cheers

Al

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

3 Attachments



MacPAG
agenda_Jun_4_2014.



PAG Meeting
Summary - March 19,



Mac_PAG_ToR_-_Ma
rch_2014_Final.pdf

From: Alan Wiensczyk

May 29, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Reminder - Mackenzie PAG meeting - Wednesday June 4, 2014

Hello folks

Just a reminder about the Mackenzie PAG meeting taking place next week – **Wednesday, June 4, 2014** in the Boardroom at the Canfor-Mackenzie Mill Office – 1801 Mill Road.

Time 10:30-2:00 pm

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

At this meeting we will be conducting a final review and approval of the PAG Terms of Reference and some minor changes to the Sustainable Forest Management Plan and it's appendices. We will also be touring the Canfor mill to view their recent up-grades.

Lunch will be provided.

Please note the change in time and meeting location

Meeting agenda attached.

Cheers

Al

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

1 Attachment



MacPAG
agenda_Jun_4_2014.

From: Alan Wiensczyk

June 20, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

June 4th Mackenzie PAG meeting summary and meeting evaluation graph from March 19th meeting.

Hello folks

Attached is the meeting summary from the June 4, 2014, Mackenzie PAG meeting held at the Canfor Administration office in Mackenzie for your information as well as a file with several photos from the sawmill tour – and yes that is snow in June.

I've also attached the meeting evaluation summary from the March 19th, 2014 meeting as per one of the meeting summary action items.

Cheers

Al

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

3 Attachments



PAG Meeting
Summary - June_4_2014



Mackenzie PAG
Canfor Sawmill Tour photos



MAC
PAG_satisfaction_survey



Mackenzie SFMP



June 23, 2014

Dear Mackenzie PAG members;

Please find enclosed a printed version of the updated Appendices to the Mackenzie Sustainable Forest Management Plan with the tracked changes shown, as requested by the PAG members at the June 4, 2014 meeting.

Because of the large number of pages in the entire Appendices I have only included those for which there were editorial changes. Appendix A and E (not included) consist of maps which still require updates, and Appendix G (Glossary of terms) has not been changed.

Please feel free to give either Jason or I a call or email if you have any questions or comments.

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

From: Alan Wiensczyk

Sept 3, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Mackenzie PAG fall field tour

Hello Mackenzie PAG members

Jason and I were wondering if there was still interest from the PAG members in attending a fall field tour (would most likely be in early-mid October) or if it would be okay to postpone the tour until the spring.

If you are interested in a fall tour, could you please provide some suggestions on what you would like to see.

ACTION: If you could please get back to me by phone or email with your thoughts by the 12th of September that would be greatly appreciated.

Fall: _____

Or

Spring: _____

Suggestions: _____

Thanks very much

Sincerely

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



Mackenzie SFMP



November 12, 2014

To: Mackenzie PAG mailing list

Dear First Name,

The next meeting of the Mackenzie PAG is Wednesday, Dec 3rd, 2014.

Time: 10:00 AM – 2:00 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will be hearing a presentation on invasive plants, a presentation on Canfor's SFMP 2013/14 annual report, discussing a proposed indicator for timing of burning, and guidelines for the protection of aspen. Lunch will be provided.

A draft agenda is attached.

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

From: Alan Wiensczyk

Nov 12, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Mackenzie PAG meeting - Wednesday, December 3, 2014

Hey folks

Hope everyone had a good summer.

The next Mackenzie PAG meeting is going to be held on **Wednesday, December 3, 2014**.

Time: 10:00 am – 2:00 pm

Location: Mackenzie Recreation Centre

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

Agenda items are:

- Presentation on Invasive Plants by Andrea Eastham (Northwest Invasive Plant Council).
- 2013/14 Annual Report
- Proposed Indicator for timing of burning.
- Guideline for protecting aspen trees.

The following meeting materials are provided:

- Draft Agenda

Sincerely,

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

1 Attachment



MacPAG
agenda_Dec_3_2014

From: Alan Wiensczyk

Nov 25, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer; Sara Cotter

Reminder - Mackenzie PAG meeting - Wednesday, December 3, 2014

Hello folks

Just a reminder to please RSVP to the facilitator if you plan on attending the next Mackenzie PAG meeting which is being held on **Wednesday, December 3, 2014**.

Time: 10:00 am – 2:00 pm

Location: Mackenzie Recreation Centre – **Curling club lounge***

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

Agenda items are:

- Presentation on Invasive Plants by Andrea Eastham (Northwest Invasive Plant Council).
- 2013/14 Annual Report
- Proposed Indicator for timing of burning.
- Guideline for protecting aspen trees.
- Mackenzie TSA AAC determination

The following meeting materials are provided:

- Draft Agenda

Sincerely,

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

1 Attachment



MacPAG
agenda_Dec_3_2014



Mackenzie SFMP



December 18, 2014

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

Dear Jim and Janet;

Enclosed is the meeting summary from the Mackenzie PAG meeting held on December 3, 2014.

It was a pleasure to meet both of you and I hope that you have a safe and happy holiday season and best wishes for a happy and healthy New Year.

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



Mackenzie SFMP



December 18, 2014

Nancy Perreault
Bag 24
Germansen Landing, BC V0J 1T0

Dear Nancy;

Enclosed is the meeting summary from the Mackenzie PAG meeting held on December 3, 2014.

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

From: Alan Wiensczyk

Dec 18, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

December 3, 2014 Mackenzie PAG Meeting summary

Hello folks

Attached is the meeting summary from the Mackenzie PAG meeting held on December 3, 2014.

I would also like to take this opportunity to wish you a safe and joyous holiday season and best wishes for a happy and healthy New Year.

Sincerely

1 Attachment



MK PAG Minutes
120314 Final Draft.pdf

From: Alan Wiensczyk

Dec 5, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Mackenzie Draft Annual Report

Hello folks

Attached is a digital copy of the draft Mackenzie SFMP 2013-14 annual report that was discussed and hard copies provided to attendees at the PAG meeting on Wednesday, December 3, 2014.

Action: Please review and provide any comments on the report to either Jason or myself by January 5, 2015.

Thanks very much and hope that everyone has a happy and safe holiday season.

Cheers

Al

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

1 Attachment



MK_SFMP_Annual_Report_13_14_ver01_

From: Alan Wiensczyk

Dec 9, 2014

To: Mackenzie PAG distribution list
CC: Jason Neumeyer

Mackenzie Nature Observatory 2014 annual report

Hello everyone

Vi Lambie just sent me a copy of the Mackenzie Nature Observatory's 2014 annual report which I thought would be of interest to the PAG members.

Cheers

Al

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

From: Vi Lambie
Sent: Monday, December 08, 2014 6:46 PM
To: Al Wiensczyk
Subject: Mackenzie

Hi Al,
I thought you may like to know a little about the work Mackenzie Nature Observatory does at Mugaha Marsh. We have been operating a banding station there for 20 years during the fall banding season. I just finished putting together our 2014 annual report and a pdf of it is attached.
Sincerely,
Vi Lambie

1 Attachment



2014 MNO
Report.pdf



Mackenzie SFMP



February 26, 2015

To: Mackenzie PAG mailing list

Dear First Name,

The next meeting of the Mackenzie PAG is Wednesday, March 25, 2015.

Time: 10:30 AM – 2:30 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will be hearing a presentation on managing for visual quality, a presentation on the recent internal and external audits, and discussing editorial changes to the Sustainable Forest Management plan. Lunch will be provided.

A draft agenda is attached.

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

From: Alan Wiensczyk

Feb 26, 2015

To: Mackenzie PAG distribution list

CC: Jason Neumeyer

Mackenzie PAG meeting - Wednesday, March 25, 2015

Hey folks

The next meeting of the Mackenzie PAG is Wednesday, March 25, 2015.

Time: 10:30 AM – 2:30 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will hearing a presentation on managing for visual quality, a presentation on the recent internal and external audits, and discussing editorial changes to the Sustainable Forest Management plan. Lunch will be provided.

A draft agenda is attached.

Sincerely,

Al Wiensczyk

Trout Creek Collaborative Solutions

Phone: 250-614-4354

Cell: 250-640-0496

Email: alan@tccsolutions.ca

Website: www.tccsolutions.ca

Facilitating informed natural resource management decision-making.

1 Attachment



MacPAG
agenda_Mar_25_201

From: Alan Wiensczyk

March 16, 2015

To: Mackenzie PAG distribution list

CC: Jason Neumeyer

Reminder - Mackenzie PAG meeting - Wednesday, March 25, 2015

Hello folks

Just a reminder to please let me know if you plan on attending the upcoming Mackenzie PAG meeting on Wednesday, March 25, 2015.

Time: 10:30 AM – 2:30 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will hearing a presentation on managing for visual quality, a presentation on the recent internal and external audits, and discussing editorial changes to the Sustainable Forest Management plan. Lunch will be provided.

A draft agenda is attached.

Sincerely,

Al Wiensczyk

Trout Creek Collaborative Solutions

Phone: 250-614-4354

Cell: 250-640-0496

Email: alan@tccsolutions.ca

Website: www.tccsolutions.ca

Facilitating informed natural resource management decision-making.

1 Attachment



MacPAG
agenda_Mar_25_201

From: Alan Wiensczyk

March 24, 2015

To: confirmed Mackenzie PAG attendees

CC: Jason Neumeyer

Reminder - Mackenzie PAG meeting tomorrow – 10:30 am

Hey folks

Just a friendly reminder about the Mackenzie PAG meeting tomorrow starting at 10:30 am at the Mackenzie Rec Centre.

See you then.

Cheers

Al

Al Wiensczyk

Trout Creek Collaborative Solutions

Phone: 250-614-4354

Cell: 250-640-0496

Email: alan@tccsolutions.ca

Website: www.tccsolutions.ca

Facilitating informed natural resource management decision-making.



Mackenzie SFMP



March 31, 2015

To: Mackenzie PAG mailing list

Dear First Name,

Here are the meeting minutes from the Mackenzie PAG meeting that was held on Wednesday, March 25, 2015.

Also included is a summary of the editorial changes to the Mackenzie Sustainable Forest Management Plan for your review and comment. PAG members are asked to submit any comments on the changes to either myself or Jason Neumeyer prior to the next PAG meeting which is expected to be in late August/early September.

I have also included a copy of the Debris Burning Management System that was discussed at the December 3, 2014 PAG meeting.

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

From: Alan Wiensczyk

March 31, 2015

To: Mackenzie PAG Distribution List

CC: Jason Neumeyer

Mackenzie March 25, 2015 PAG meeting summary

Hello folks

Here are the meeting minutes from the Mackenzie PAG meeting that was held on Wednesday, March 25, 2015.

Also included is a summary of the editorial changes to the Mackenzie Sustainable Forest Management Plan for your review and comment. PAG members are asked to submit any comments on the changes to either myself or Jason Neumeyer prior to the next PAG meeting which is expected to be in late August/early September.

I have also included a copy of the Debris Burning Management System that was discussed at the December 3, 2014 PAG meeting.

Cheers

Al

Al Wiensczyk

Trout Creek Collaborative Solutions

Phone: 250-614-4354

Cell: 250-640-0496

Email: alan@tccsolutions.ca

Website: www.tccsolutions.ca

Facilitating informed natural resource management decision-making.

3 Attachments



MK PAG Minutes
032515 Final Draft.pc



Mack_SFMP_summar
y_of_changes_mar5_



fmg_east_pile_burni
ng_management_sys

**Mackenzie PAG First Nations Contact List
May 31, 2014**

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Mackenzie SFMP



May 20, 2014

To: Mackenzie PAG First Nations Mailing List

Dear Chief Last Name;

The next meeting of the Mackenzie PAG is Wednesday, June 4th, 2014.

Time: 10:30 AM – 2:00 PM

Location: Boardroom - Canfor Mackenzie Sawmill – 1801 Mill Road, Mackenzie.

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

At this meeting we will be conducting a final review and approval of the PAG Terms of Reference and some minor changes to the Sustainable Forest Management Plan and its appendices. We will also be touring the Canfor mill to view their recent up-grades. Lunch will be provided.

Please note the change in location and start time for this meeting.

A draft agenda and the draft summary of the March 19th meeting are attached.

Sincerely,

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

Alan Wiensczyk, RPF
Trout Creek Collaborative Solutions
250.614.4354 tel, alan@tccsolutions.ca



Mackenzie SFMP



November 12, 2014

To: Mackenzie PAG First Nations Mailing List

Dear Chief Last Name;

The next meeting of the Mackenzie PAG is Wednesday, December 3, 2014.

Time: 10:00 AM – 2:00 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will be hearing a presentation on invasive plants, a presentation on Canfor's SFMP 2013/14 annual report, discussing a proposed indicator for timing of burning, and guidelines for the protection of aspen. Lunch will be provided.

A draft agenda is attached.

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



Mackenzie SFMP



February 26, 2014

To: Mackenzie PAG First Nations Mailing List

Dear Chief Last Name;

The next meeting of the Mackenzie PAG is Wednesday, March 25, 2015.

Time: 10:30 AM – 2:30 PM

Location: Mackenzie Recreation Centre

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

At this meeting we will be hearing a presentation on managing for visual quality, a presentation on the recent internal and external audits, and discussing editorial changes to the Sustainable Forest Management plan. Lunch will be provided.

A draft agenda is attached.

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



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 & 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



2013 - 2014 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, 2013 to March 31, 2014. This annual report is solely reporting the efforts of Canadian Forest Products Ltd. operating under Forest License A15384 within the Mackenzie TSA. In late 2012, BCTS opted out of this plan after a 6 year partnership between the 2 parties. It is noted that mention of BCTS is removed from the plan. Some of these changes were made to allow Canfor to have similar indicators across many plans and allow the corporate level to easily compare annual reports across the many DFAs the company manages. Other changes were merely housekeeping in nature and to better focus indicator statements to align with provincial regulations. 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. Starting in 2012 we began field tours on the DFA to connect the plan to operations and have received great feedback from the PAG on the importance of making this connection.

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, 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	Old forest		√	
2	Interior forest		√	
3	Biodiversity reserve effectiveness	√		
4	Productive forest representation	√		
5	Patch size		√	
6	Coarse Woody Debris	√		
7	Wildlife Trees	√		
8	Riparian Management area effectiveness	√		
9	Sedimentation	√		
10	Stream Crossings			√
11	Peak Flow Index	√		
12	Road re-vegetation	√		
13	Road environmental risk assessments	√		
14	Species within the DFA	√		
15	Sites of Biological Significance	√		
16	Soil Conservation	√		
17	Terrain Management	√		
18	Reportable Spills	√		
19	Site Conversion	√		
20	Permanent Access Structures	√		
21	Communication of planned Deactivation Projects	√		
22	Regeneration Delay	√		
23	Free Growing	√		
24	Prioritizing harvest of damaged stands	√		

Indicator Number	Indicator Description	Target Met	Pending	Target Not Met
25	Harvest Volumes		√	
26	First-order Wood Products	√		
27	Local Investment	√		
28	Contract Opportunities for First Nations	√		
29	Satisfaction (PAG)	√		
30	Input into Forest Planning	√		
31	Public and Stakeholder Concerns	√		
32	Access to SFM Information	√		
33	SFM Educational Opportunities	√		
34	Heritage Conservation	√		
35	First Nations Input into Forest Planning	√		
36	First Nations Concerns	√		
37	Non Timber Benefits	√		
38	Safety Policies	√		
39	Accidents	√		
40	Signage	√		
41	Forest Area by Species Composition	√		
42	Proportion of Genetically Modified Trees in Reforestation Efforts	√		
43	Dispersed Retention Levels	√		
44	Investment in Training and Skills Development	√		
45	Level of Direct and Indirect Employment	√		
46	People Reached through Educational Outreach	√		
47	Protection of Identified Sacred and Culturally Important Sites	√		
48	Understanding the Nature of Aboriginal Rights and Title	√		
	Totals	43	4	1

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 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	1	9			
	4	5	11			
Blackwater	2	35	9			
	4		11			
	5		0			
Gaffney*	2	4			4	
	4	12			12	
Eklund*	5	1			1	
Manson River*	2	1			1	
	4	2			2	
Total Blocks		71		Total Blocks that meet target		

Source: Mackenzie LOWG Analysis.

Indicator Discussion: The 2013-2014 Analysis for old and old interior forest is being completed by the BCTS and has not been completed yet. The work has been delayed and is now planned to be completed by the end of 2014 (December).

In the 2013/14 reporting year there were 71 blocks harvested in 4 LUs. *Gaffney, Eklund and Manson River LU's contain spatially defined OGMA's, therefore there are no targets for old growth as it is spatially defined and protected. These blocks automatically meet the objective.

Indicator 2 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	1	10			
	4	5	10			
Blackwater	2		10			
	4	35	10			
	5	10	0			
Gaffney*	2	4			4	
	4	12			12	
Eklund*	5	1			1	
Manson River*	2	1			1	
	4	2			2	
Total Blocks		71		Total Blocks that meet target		

Source: Mackenzie LOWG Analysis

Indicator Discussion: The 2013-2014 Analysis for old and old interior forest is being completed by the BCTS and has not been completed yet. The work has been delayed and is now planned to be completed by the end of 2014 (December).

In the 2013/14 reporting year there were 71 blocks harvested in 4 LUs. *Gaffney, Eklund and Manson River LU's contain spatially defined OGMAs, therefore there are no targets for old interior as it is spatially defined and protected. These blocks automatically meet the objective. ~~There were 53 blocks in LUs without OGMAs and they met target as well.~~

Indicator 3 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 OGMAs.	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 (OGMAs), 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 OGMAs 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 OGMAs	%in DFA
	Blocks	Roads	Total		
Canfor	71	110	181	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 4 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		
	2011	2012	2013
SBSvk\03	0	0	0
SBSWk1\05	0	0	0
ESSFmv3\06	0.6	4.7	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.

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

Indicator 5 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 lead 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	71		

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 2013-2014 Patch analysis is being completed by BCTS and has not been completed yet. The work has been delayed and is now planned to be completed by the end of 2014 (December).

Indicator 6 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	71	71	100%

Source: Final harvest inspections, Incident Tracking Systems.

Indicator Discussion: This indicator applies to blocks only. Canfor completed an assessment of CWD retention on post-harvest blocks in 2013. This assessment was completed by Wildlife Infometrics. A series of surveys were conducted resulting in a statistically valid characterization of retained CWD on sites harvested within the previous 5 year period in the ESSF and SBS BGC zones. The evaluation showed that all of the blocks satisfy the minimum required CWD volume as identified by FRPA and the Mackenzie SFMP.

Indicator 7 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	71	71	100%

Source: Site Plans

Indicator Discussion: WTP targets come from Canfor's approved Forest Stewardship Plan and are specific to ecotype and Landscape Unit.

Indicator 8 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	110	71	6	187	187	100%

Source: Site Plans, Incident Tacking Systems.

Indicator Discussion:

Indicator 9 Sedimentation

Indicator Statement	Target and Variance
The percentage of identified unnatural sediment occurrences where mitigating actions were taken.	Target: 100% Variance: -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	3	3	100%

Source: ITS

Indicator Discussion: During construction of a spur road in block BUR011 excess road material was pushed down to the road junction with the existing road and across the existing road (ITS-MK-2014-1103). The material ended up on top of the dense snow plowed off of the road earlier under which a stream was located. The material was removed from on top of the stream down to clean snow. The site was also inspected in the spring and no further actions were required.

There were two instances where temporary bridges were removed during the winter and the erosion control measures were not adequate. During the spring follow-up assessments they were identified to require additional erosion control measures and the work was completed. (ITS-MK-2014-1136 and ITS-MK-2014-1195).

Indicator 10 Stream Crossings

Indicator Statement	Target and Variance
Percentage of stream crossings appropriately designed and properly installed and/or removed.	Target: 100% Variance: -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	21	13	34	21	11	32	94%

Source: Incident Tracking System, Supervisor Communication.

Indicator Discussion: An issue was noted which resulted in some sedimentation in 2 streams in block 4901 and block 4916, this was a result of improper erosion control measures at the time the bridges were removed during the winter months. (ITS-MK-2014-1136, ITS-MK-2014-1195)

Indicator 11 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	17	17	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.

Indicator 12 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	23	23	100%

Source: Licensee tracking systems, Supervisor communication.

Indicator Discussion:

Indicator 13 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	110	110	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 14 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	0	0	0	0	100%

Source: Site Plans

Indicator Discussion: During the reporting period Canfor did not have any blocks with management strategies pertaining to Species at Risk, Ungulate Winter Ranges or species of concern.

Indicator 15 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.	Target: 100% Variance: 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 16 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	71	6	77	77	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 17 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	0	0	0	0	100%

Source: Site Plans

Indicator Discussion: During the reporting period there were no operations harvested which had special requirements for terrain management.

Indicator 18 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
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	Petroleum Products	Pesticides	Antifreeze	Battery Acid	Grease	Paints and Solvents	Total
Number of spills	1	0	0	0	0	0	1
Amount (L)	80						80 Litres

Source: ITS

Indicator Discussion: During the reporting period there was 1 spill which was approximately 80L of diesel fuel. See ITS-MK-2013-0933 for more details.

Indicator 19 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	1,309,271	10,840	0.83%

Source: GIS analysis

Indicator Discussion:

Indicator 20 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 indicates 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	3692.6	104.7	2.8%

Source: Site Plans

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

Indicator 21 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

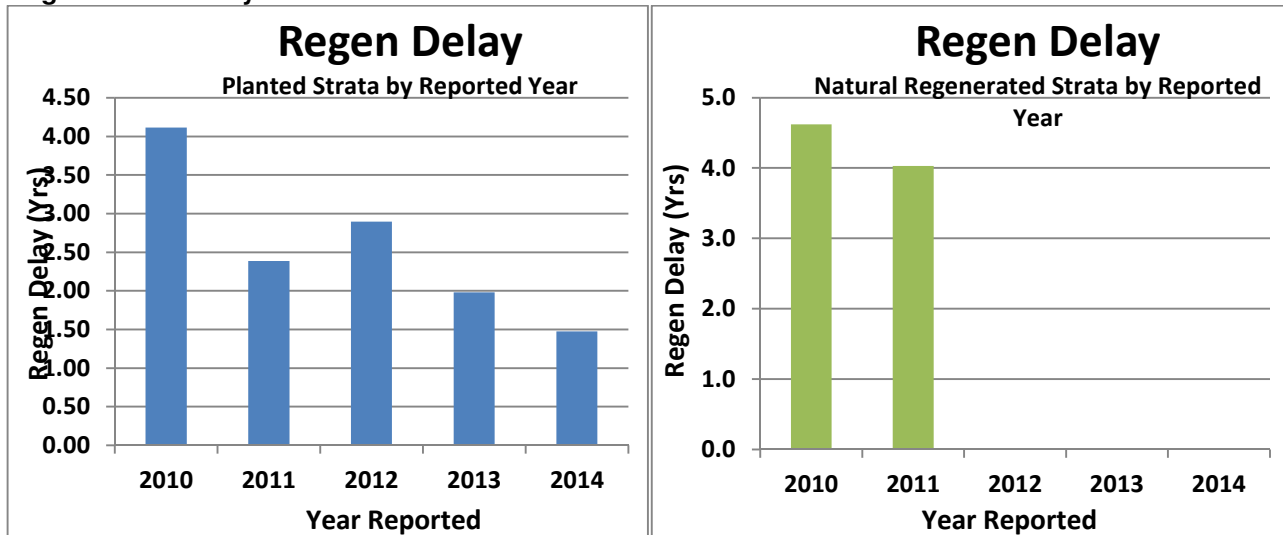
Indicator Discussion: There were no major de-activation projects completed by Canfor during the reporting period.

Indicator 22 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.

Indicator 23 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	4459.9	4459.9	100.0%

Source: Resources.

Indicator Discussion: During the reporting period there was 105 Standards Units due for free growing, of these they all were declared before the date.

Indicator 24 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. Windthrown 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	2881	3275	88.0%

Source: Site plans, cruise compilations.

Indicator Discussion: Calculated using net area to reforest (NAR). 71 blocks harvested 6 of those had less than 40% net pine at the cruise, therefore were not deemed to be salvage.

Indicator 25 Harvest volumes

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	864,132						5,414,520	

Source: Cut control letters, Harvest Billing System

Indicator Discussion: 2013 is 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 2013 Canfor cut 80% of the annual allocation.

Indicator 26 First-Order Wood Products

Indicator Statement	Target and Variance
The number of first-order wood products produced from trees harvested from the DFA.	Target: 5 Variance: -2

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 27 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 stumps. 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	\$21,544,432.15	\$47,056,673.68	45.8

Source: Accounting records

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

Indicator 28 Contract Opportunities to First Nations

Indicator Statement	Target and Variance
The number of contract opportunities with First Nations within the DFA.	Target: >5 Variance: -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	8

Source: Signatory contract records.

Indicator Discussion:

Indicator 29 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%)
August 21, 2013	3.7	74%	26.0%
March 19, 2014	4.4	88%	12%
Overall Score =		81%	19%

Source: PAG satisfaction surveys

Indicator Discussion:

Indicator 30 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
	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	2
Newsletters	
Open houses	2
PAG Meetings	1
Documented meetings	6
Documented phone calls/emails	
Information Sharing	2
TOTAL	14

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. Two open house meetings were held in Manson Creek and Germansen Landing.

Indicator 31 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.	<u>Target:</u> 100% <u>Variance:</u> -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: Two concerns were from trappers. One concern was around harvest timing and the other was regarding ribbons identified in his trap line area that he was not aware of.

Indicator 32 Access to SFM information

Indicator Statement	Target and Variance
The number of opportunities provided annually for access to SFM related documents.	<u>Target:</u> 3 <u>Variance:</u> 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	2
Website	1
Distribution of SFM information	
TOTAL	4

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

Indicator Discussion:

Indicator 33 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 signatories provide 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	1
Newsletters	
Open houses	
Presentations	
PAG Meetings	1
Trade Shows, etc.	1
TOTAL	3

Source: Planning forester documentation.

Indicator Discussion:

Indicator 34 Heritage Conservation

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

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. One block harvested within the reporting period had an AIA completed on the block with no archaeological sites identified.

Indicator 35 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.	<u>Target:</u> ≥ 2 per First Nation <u>Variance:</u> 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'azdli	McLeod Lake	West Moberly	Saulteau	Halfway River
Operational planning referrals	Canfor	2		2	2	2	2		2
Open house style meetings	Canfor								
AIA Referrals	Canfor			2	4	1	4		4
Trade shows	Canfor	1	1	1	1	1	1	1	1
Formal operational meetings	Canfor								
Pest Management Prescriptions Meetings and referrals	Canfor				1	1			
FSP referrals / consultation	Canfor								
TOTAL		3	1	5	8	5	7	1	7

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.

Indicator 36 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.	<u>Target:</u> 100% <u>Variance:</u> -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: A First Nation identified a concern regarding visuals on a lake within one of their reserves. 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.

Indicator 37 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	0	0	0

Source: Site plans.

Indicator Discussion:**Indicator 38 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:**Indicator 39 Accidents**

Indicator Statement	Target and Variance
Number of lost time accidents in woodlands operations.	<u>Target:</u> 0 <u>Variance:</u> 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:**Indicator 40 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	Number of Completed operational Activities requiring signage	Percent
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	and removed following completion		
Canfor	71	71	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 41 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.	<u>Target:</u> Maintain baseline ranges and distribution into the future (measured every 5 years) <u>Variance:</u> +/-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%

Source: GIS analysis of VRI data.

Indicator Discussion: There was little change in the values with the removal of BCTS from the plan.

Indicator 42 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	<u>Target:</u> 100% conformance with the standards <u>Variance:</u> 0%

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	3,260,785	3,260,785	100%

Source: Internal databases.

Indicator Discussion:

Indicator 43 Dispersed retention levels

Indicator Statement	Target and Variance
Percent of blocks meeting dispersed retention levels as prescribed in the site plan/logging plans	<u>Target:</u> 100% <u>Variance:</u> 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	71	71	100.0%

Source: Internal databases, and Incident Tracking Systems.

Indicator Discussion:

Indicator 44 Investment in training and skills development

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

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	275	275	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 us.

Indicator 45 Level of direct and indirect employment

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

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	2012-13	2013-14
Canfor	313	329	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 but there was a decrease in mill employment. The decrease in mill staff is a result of employees going on long-term-disability, retirements and modernization in the facility.

Indicator 46 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

Source: Attendance records from events held.

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

Indicator 47 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	0	0	100.0%

Source: Internal tracking databases.

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

Indicator 48 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.	<u>Target:</u> 100% <u>Variance:</u> 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.

Appendix 1

Appendix 1
2013-2014 ECA Analysis for Active Watersheds

BASIN NAME	WSHED AREA	SENSITIVITY	MAX_ECA TARGET	CURR_HARY AREA	CURR_ECA BELOW	CURR_ECA ABOVE	CURR_PFI	FUTR_HARY AREA	FUTR_ECA BELOW	FUTR_ECA ABOVE	FUTR_PFI
BLACKWATER CREEK	49,382	2	62.5	15,942	3,562	10,237	21	17,435	7,555	3,562	23
DES CREEK	3,332	1	74.5	539	258	522	16	752	443	258	21
EKLIND CREEK	24,587	2	62.5	4,078	1,895	2,030	8	5,275	524	1,895	10
FINAWS000043	7,689	2	62.5	1,795	174	1,763	23	2,043	1,692	174	24
FINAWS000046	4,961	1	74.5	2,666	2,217	360	52	2,770	2,156	360	51
FINAWS000050	3,401	1	62.5	1,922	955	1,312	39	1,991	1,010	358	40
FRIES CREEK	7,543	2	62.5	2,210	55	762	11	2,327	116	762	12
GAFFNEY CREEK	49,219	2	62.5	14,606	6,399	12,861	26	15,505	5,643	6,462	25
HOLDER CREEK	8,197	1	74.5	3,166	1,604	1,487	38	3,594	1,811	1,487	25
MANSON RIVER	62,640	2	62.5	12,348	2,938	7,596	12	13,890	3,056	4,827	40
MCDUGALL RIVER	40,438	1	74.5	7,336	4,555	6,928	17	8,454	4,307	6,880	12
NATION RIVER	68,740	2	62.5	18,207	12,565	16,481	24	20,023	12,649	3,916	17
NATROWS000006	6,205	2	62.5	4,256	1,311	1,766	29	4,309	1,310	456	24
PARAWS000024	2,382	2	62.5	1,292	407	620	26	1,329	213	413	29
PEACE WILLISTON	543,780	2	62.5	113,331	90,515	93,216	17	117,549	81,072	2,701	26
PHILIP CREEK	69,486	2	62.5	22,730	11,288	16,865	24	26,463	11,890	5,577	15
STRANDBERG CREEK	18,307	2	62.5	5,147	1,189	975	12	6,242	1,946	975	25
											16

UPDATE Forest Certification



Canadian Forest Products Ltd. 2014 CSA Z809 Surveillance/ISO 14001 Re-certification Audit Public Summary Report

Between February and August 2014 an audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a combined CSA Z809 surveillance/ISO 14001 re-certification 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 ³)
Radium ¹	392,400	221,005
Vavenby	194,912	489,138
Prince George ²	1,982,052	3,599,540
Morice ³	829,470	1,264,924
Mackenzie	2,188,430	1,082,904
Ft. Nelson	7,045,416	1,163,716
Chetwynd ⁴	486,886	683,612
Grande Prairie	<u>649,160</u>	<u>715,000</u>
Total	13,764,261	9,685,633

1. The above figures do not include operations in relation to 10,000 m³/year of Canfor's AAC in the Cranbrook Timber Supply Area which are certified to the ISO 14001 standard only.
2. 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.
3. The above figures include a new licence that was recently acquired from West Fraser Mills Ltd. but do not include operations in the Canfor chart area within the Lakes TSA (which covers approximately 29,000 hectares and has an AAC of 53,627 m³/year) that are certified to ISO 14001 only.
4. The Chetwynd operation (previously covered under a separate single-site CSA Z809 certificate) was recently added to the scope of Canfor's multi-site CSA Z809 certificate.

Audit Scope

The 2014 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 2013 audit. It included a limited scope assessment against selected requirements of the CSA Z809 standard, including those related to:

- Public participation;





- Maintenance of the SFM plan;
- Monitoring of SFM performance, and;
- Implementation of a sample 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.

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 (all team members are B.C. Registered Professional Foresters and 1 is also an Alberta Registered Professional Forester), all of whom are certified sustainable forest management (SFM) and/or environmental management system (EMS) auditors.
- **Document Review** – An off-site document review was completed prior to the field audit in order to assess EMS and SFM system 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.
- **Field Audit** – The on-site field audit included interviews with a sample of staff, contractors and PAG members 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 (60 roads, 56 harvesting blocks, 33 silviculture sites and 3 logging camps) to assess the Company’s planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices.

Audit Objectives

The objectives of the 2014 ISO 14001/CSA Z809 audit were to:

- Assess the extent to which the Company’s SFM system conforms to the requirements of the ISO 14001 and CSA Z809 standards.
- Evaluate Canfor’s progress towards addressing the open findings from previous external audits.

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.

Canfor 2014 CSA Z809 Surveillance/ISO 14001 Re-certification Audit Findings

New major non-conformities	0
New minor non-conformities	3
Systemic opportunities for improvement	1
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, which must be fully implemented by the operation within 3 months.

Major non-conformities must be addressed immediately or certification cannot be achieved / maintained.

Opportunities for Improvement:

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

Good Practices

A number of good practices were noted during the 2014 audit. The following list highlights some of the examples noted:

- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Mackenzie division uses the “Rust Risk Free-growing Tool” which is based on a rust strategy developed by the regional forest pathologist and predicts future rust incidence and includes mapping of high-risk rust areas. This was found to be an effective tool to ensure stands continue to be free growing following the FG declaration. (Mackenzie)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit found that the Radium operation had implemented additional procedures to limit/prevent sedimentation of watercourses above the Radium domestic water intake, including armouring all cross-drain culverts, installing armoured sumps at both ends of culverts and replacing a large culvert designed for in-stream installation with a small temporary bridge to eliminate in-stream work on the Forester road and bridge construction projects. (Radium)
- ISO 14001 element 4.5.1/CSA Z809 element 7.5.1: The Grande Prairie operation has implemented a stream crossing data program cooperatively developed with the Foothills Stream Crossing Partnership (FSCP). The FSCP system uses tablets for documenting inspections (bridges and culverts) and will provide data consistency through built-in data validation processes and system functionality to facilitate remediation planning and reporting. (Grande Prairie)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit found that the Fort St. John operation had implemented effective procedures to help manage how it meets the Migratory Bird Act Regulations. These include a management strategy (developed in July 2013) that is used to determine the likelihood of certain stands containing active nests based on tree species, age, and timing of operations. Where a high likelihood is determined biologists undertake detailed bird surveys for consideration during harvest scheduling. (Fort St. John)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Vanderhoof operation is introducing a small chipping facility at the Plateau mill site on a trial basis for processing 1500m³ of pulp logs down to a 2 inch top. The chipping facility will utilize logging waste that has previously been burned on site. (Vanderhoof)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Company has recently (April 2014) developed a Structure Management System as a means to provide staff with better direction regarding forest management system (FMS) and Regulatory requirements for the planning, installation, maintenance and deactivation of bridges and major culverts. (Corporate)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit observed conservative riparian management (well sized and located buffers along various stream classes, effective water control on in-block roads, etc.) on the sites visited included in the audit sample. (Prince George)
- ISO 14001 4.4.6/CSA Z809 7.4.6/7.3.3: A high level of conformance with FMS requirements and applicable regulatory requirements was observed on the field sites that were visited during the audit. (Corporate)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Houston operation took a lead role in proposing an alternate plan for establishing OGMA. The alternate plan prioritized OGMA in areas with high environmental values while reducing the impact on timber supply and has the support of Forest Licence holders, First Nations and government.



The audit team conducted field assessments of a large number of field sites (60 roads, 56 harvesting blocks, 35 silviculture sites and 3 logging camps) to assess the Company's planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices.

Follow-up on Findings from Previous Audits

At the time of this assessment there were a total of 6 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 in the large majority of instances, and (2) were effective in addressing the root cause(s) of these findings. As a result, 5 out of the 6 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 2015 audit.

New Areas of Nonconformity

A total of 3 new minor non-conformities were identified during the 2014 ISO 14001/CSA Z809 audit, as follows:

- CSA Z809-08 element 6.1 requires that forecasts be prepared for the expected responses of each indicator to applicable strategies, and that the methods and assumptions used for making each forecast be described. The 2012 audit identified a number of weaknesses in relation to the indicator forecasts included in the Nicola Thompson Fraser (NTF) SFM plan. These weaknesses were previously included in a multi-SFM plan non-conformity (2012-NC-05) which has now been closed due to effective implementation of the action plans applicable to the large majority of SFM plans to which this finding applied. However, review of the current (January 2014) version of the NTF SFM plan during the June 2014 Vavenby site visit found that the plan has yet to be revised to address all of the previously identified weaknesses regarding indicator forecasts. Note: Although the weaknesses in indicator forecasts have existed in the NTF SFM plan for some time, there is sufficient evidence of progress towards addressing this issue to justify a minor (and not major) non-conformity at this time. (Vavenby)
- 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) 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 sites during the audit identified a number of weaknesses in the implementation of operational controls (e.g., poor sediment control on 1 active Radium haul road, inadequate deactivation of some Vanderhoof in-block roads, garbage left on several Fort St. James harvesting sites). (Radium, Vanderhoof and Fort St. James)
- 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, weaknesses in the implementation of these procedures were noted on some of the sites visited during the audit (e.g., lack of an inspection for 1 camp located at the Mackenzie operation, inspections not completed at the required frequency for some sites at the Vanderhoof and Fort St. James operations, failure to identify the need to remove a log fill crossing on an NCD during the final inspection of a Vanderhoof harvest block). (Mackenzie, Vanderhoof and Fort. St. James).



The Mackenzie division uses the "Rust Risk Free-growing Tool" which is based on a rust strategy developed by the regional forest pathologist and predicts future rust incidence and includes mapping of high-risk rust areas. This was found to be an effective tool to ensure stands continue to be free growing following the FG declaration. (Mackenzie)

Systemic Opportunities for Improvement

A total of 1 new systemic opportunity for improvement was identified during the 2014 ISO 14001/CSA Z809 audit, as follows:

- ISO 14001 element 4.4.5 and CSA Z809-08 element 7.4.5 require the organization to develop and implement procedures for document control to ensure that: (1) FMS document development, review and revision is adequately controlled, (2) relevant documents are available at point of use, and (3) the unintended use of obsolete documents is prevented. These requirements are addressed in section 9 of the Company's FMS and various standard work procedures (SWP)s including the Contract Worker SWP. The audit found that the Company's document control procedures had been implemented as required in the large majority of instances. However, some isolated weaknesses in the implementation of these procedures were noted (e.g., a skidder operator and an excavator operator at the Radium operation who did not have block maps in their machines, one Fort St. James loader operator who did not have a copy of the emergency response plan (EPRP), lack of a block map and EPRP on equipment operating on an active Vavenby harvest block). (Radium, Fort St. James and Vavenby)

Isolated Issues

A number of isolated (i.e., non-systemic) weaknesses in the implementation of FMS requirements were also identified during the 2014 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 2014 audit have been developed by Canfor's woodlands operations and reviewed and approved by KPMG PRI. The 2015 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 2014 and previous ISO 14001/CSA Z809 audits.
- The Company's CSA Z809 certificate expires on November 7, 2015. In order to ensure that there is no gap in certification, a full-scope CSA Z809 re-certification must be completed by early October 2014.

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 2015.



The audit observed conservative riparian management (well sized and located buffers along various stream classes, effective water control on in-block roads, etc.) on the sites visited included in the audit sample. In the picture above, a timbered buffer containing at least 10 dominant/co-dominant trees per 100 metres of stream length has been retained adjacent to a small default S4 (potentially fish-bearing) stream. (Prince George)

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NWIPC Update

Invasive Plant Management In BC and Locally

Wednesday, Dec. 3, 2014
Mackenzie Public Advisory Group

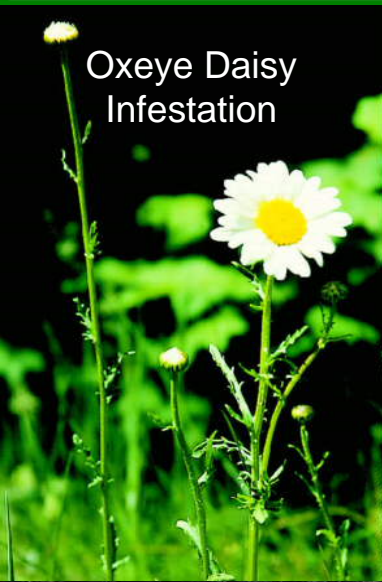
Andrea Eastham, NWIPC Field Coordinator



AGENDA

- Why should we care about invasives?
- How are invasive plants managed in BC?
- What is NWIPC and how do we operate?
- How identify the invasive ones and report?
- Questions & Discussion

What's the big deal about invasive plants?



- Spread of invasive plant species is the **second** biggest threat to biodiversity after urban expansion.
- Once infested, many sites can never be restored.





The bad news...

- Environmental impacts
 - Native grasses, wildflowers and endangered species destroyed
- Economic impacts on
 - Forestry
 - Agriculture
 - Utilities and transportation
 - Recreation and tourism
- Harm human and animal health
 - Not eaten by animals
 - Poisonous or thorny



Regional Weed Committees



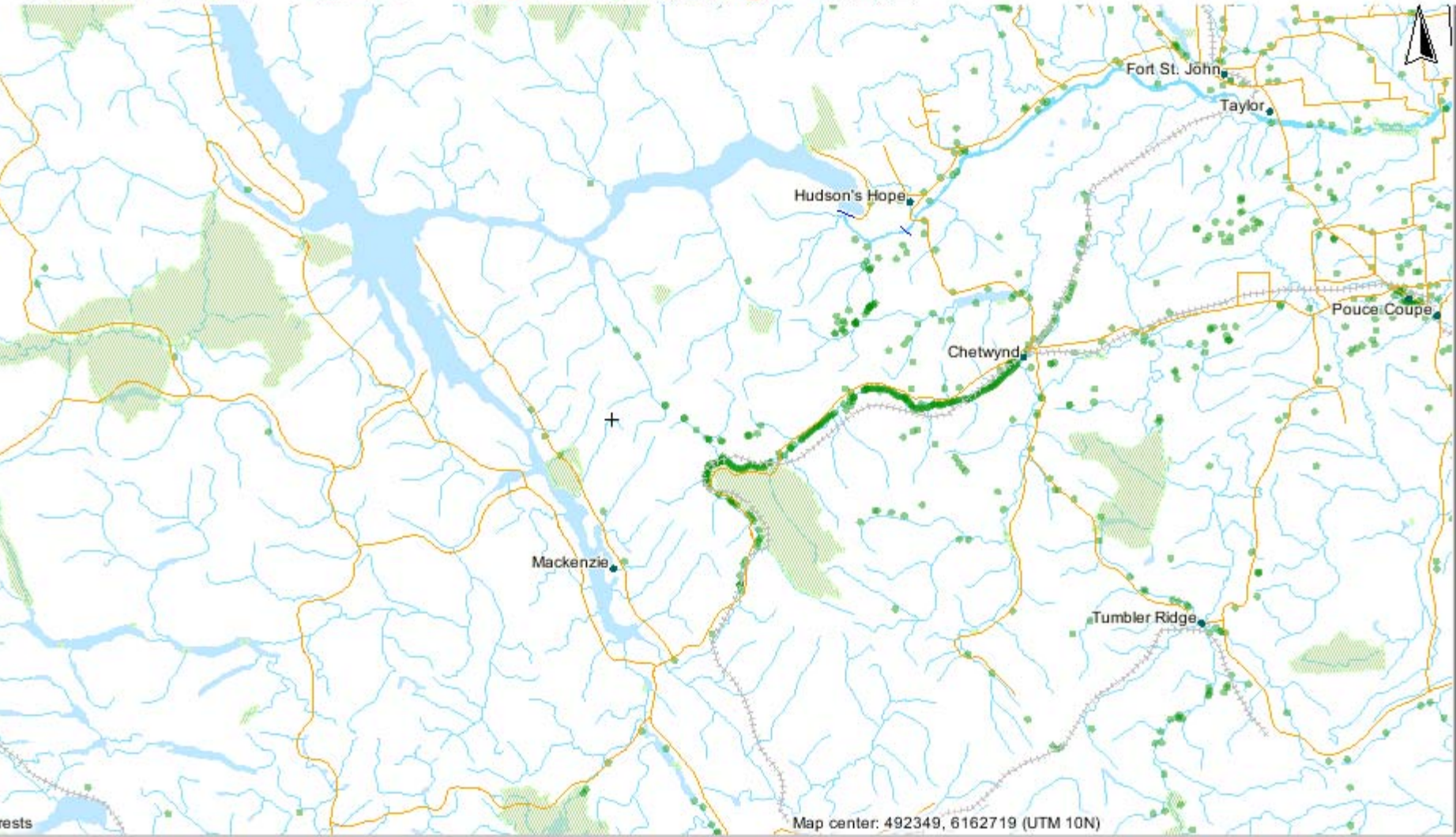
1. Coastal Invasive Species Committee (CISC)
2. Invasive Species Council of Metro Vancouver (ISCMV)
3. Fraser Valley Invasive Plant Council (FVIPC)
4. Sea to Sky Invasive Species Society (SSISC)
5. Lillooet Regional Invasive Species Society (LRISS)
6. Okanagan and Similkameen Invasive Species Society (OASISS)
7. Boundary Invasive Species Society (BIS)
8. Central Kootenay Invasive Plant Committee (CKIPC)
9. East Kootenay Invasive Plant Council (EKIPC)
10. Regional District of Central Okanagan (RDCO)
11. Regional District of North Okanagan Invasive Plant Technical Advisory Committee (RDNO IPTAC)
12. Columbia-Shuswap Regional District (CSRD)
13. Southern Interior Weed Management Committee (SIWMC)
14. Cariboo Chilcolin Coast Invasive Plant Committee (CCCIPC)
15. Northwest Invasive Plant Council (NWIPC)
16. Invasive Plant Committee of the Peace River Regional District (IPCPRRD)
17. Fort Nelson Invasive Plant Management Area Steering Committee (FNIPMAASC)

**Invasive Species Council of BC provides
coordination among committees
<http://www.bcinvasives.ca/>**



Invasive Alien Plant Program - Map Display

About Layers Legend Find Location Refresh Map Bookmark Tutorial Disclaimer Report-A-Weed



Map center: 492349, 6162719 (UTM 10N)

go Map Tool: Pan





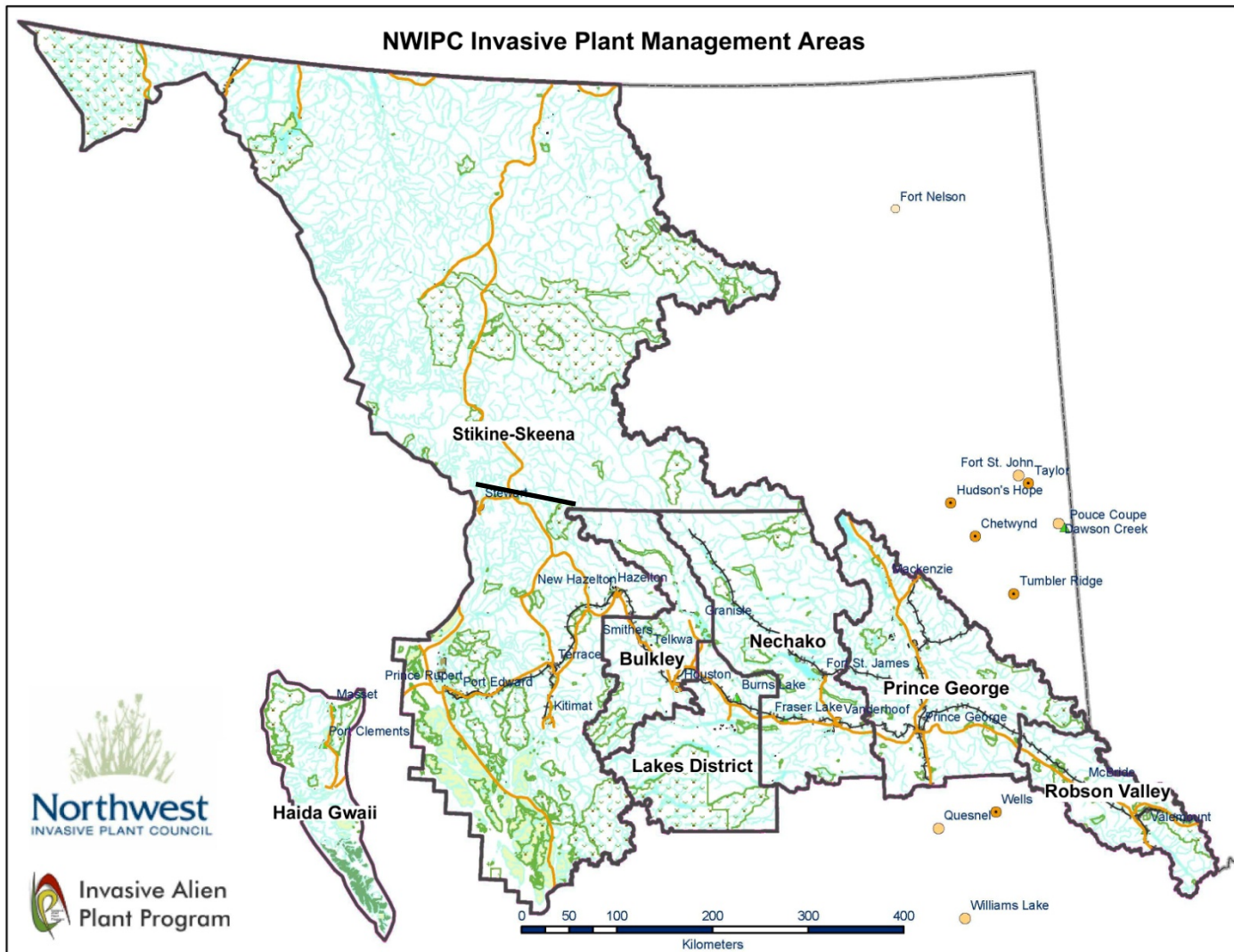
NWIPC Goals

The Northwest Invasive Plant Council strives to prevent and control the spread of invasive alien plant species in northwestern BC.

The goal is to prevent further damage to the ecosystems of northwest BC from invasive alien plants and begin to rehabilitate ecosystems that have been degraded by invasive alien plants



8 IPMAs – Mackenzie is in the Prince George IPMA





Who is NWIPC?

- Non-profit society; board of directors
- Management and coordination from pooled funds
- On-the-ground activities specific to partner funding
- Approximately 785 Members
- Twenty Financial Partners
- 2 First Nation Partnerships
- Single-point IP management
- Your weed committee as per the provincial Weed Act

WEEDS KNOW NO BOUNDARIES !!!!!



How does NWIPC work?

- Annual program planning
- Annual program approved by members
- Integrated program: field, awareness, etc.
- 8 IP area managers (IPMAs) + other crews do the inventory and treatment
- Weed reporting hotline – 1-866-44WEEDS
- Community projects
- Annual reports

WHAT MATT FOUND

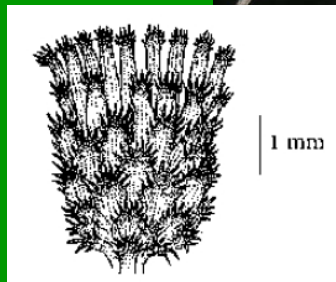
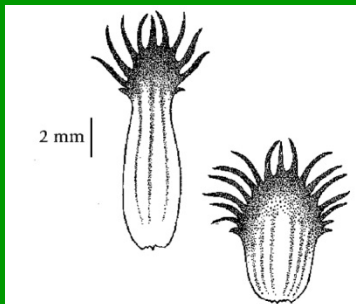
A photograph of a sandy dune environment. In the foreground, a plant with multiple thin stems and numerous small, light purple flowers is in focus. The ground is composed of light-colored sand with some sparse, dry grasses and small green plants. In the background, a calm body of water (Williston Lake) is visible under a clear sky. The overall scene is a natural, coastal or lakeside dune habitat.

SK ON WEST SHORE OF WILLISTON LAKE



Northwest
INVASIVE PLANT COUNCIL

Spotted knapweed



Common tansy



Report Invasive Plant Sites

Four Ways to Report

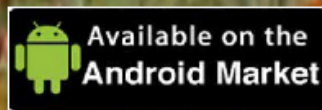
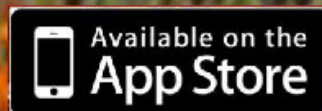
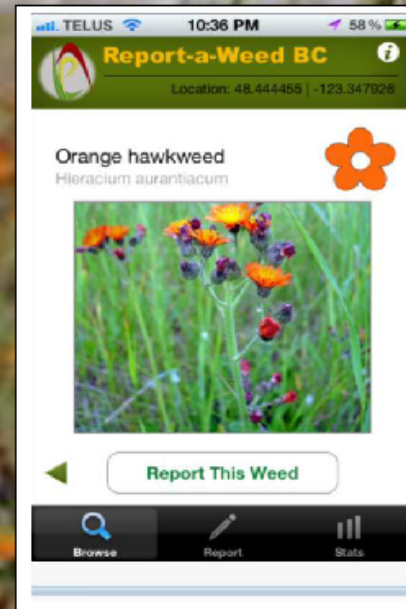
- Call 1-866-44WEEDS
- NWIPC web site nwipc.org & email info@nwipc.org
- Report-A-Weed www.reportaweedbc.ca
- Report-A-Weed App For Smart Phones

Smart Phone App

Spot invasive plants in BC? There's an app for that!

Report-A-Weed BC

www.reportaweedbc.ca





NWIPC

Thank you!!!

Questions?

Draft SFM Annual Report

Mackenzie DFA
2013/14





Mackenzie – Draft 2013/14 Annual Report

- Reporting period April 1, 2013 to March 31, 2014



Mackenzie – Draft 2013/14 Annual Report

Out of 48 indicators:

- Objectives met for 43
- Objectives pending for 4
- Objectives not met for 1



Mackenzie – Draft 2013/14 Annual Report
INDICATORS PENDING- SUMMARY

- 1 - % of blocks that are within LU/BEC Groups that meet prescribed old-growth targets
- 2 - % of blocks that are within LU/BEC Groups that meet prescribed Interior Old targets
- 5 - % of blocks harvested that meet prescribed patch size target ranges or are trending towards the target ranges



Mackenzie – Draft 2013/14 Annual Report
INDICATORS PENDING- SUMMARY

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



Mackenzie – Draft 2013/14 Annual Report
INDICATORS NOT MET - SUMMARY

10 - % of stream crossings appropriately designed and properly installed and or removed.



Mackenzie – Draft 2013/14 Annual Report
**INDICATORS NOT MET in previous year
(2012/13)**

4 – Total ha logged in rare and unproductive ecosystems.

8 - % of forest operations consistent with riparian management area requirements as indicated in operational plans and or site plans.

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



Mackenzie – Draft 2013/14 Annual Report

Indicators Not Met - Details

10 - % of stream crossings appropriately designed and properly installed and or removed.

- 2 instances of improper removal of bridges in the winter.
- Sedimentation entered streams; erosion control completed at time of bridge removal was inadequate.
- Both bridges were temp installs on block roads.
- Action plans were implemented to re-do / improve erosion control in the spring and work was completed.



FMG East Debris Burning Management System

January 1/2015

OBJECTIVES OF THE ROADSIDE DEBRIS BURNING MANAGEMENT SYSTEM.....	2
PPE	2
OPEN BURNING SMOKE CONTROL REGULATION.....	2
MOE BURN PLANS.....	2
VENTING INDEX FORECASTS.....	3
RULES OF VENTING CONDITIONS NEEDED TO BURN PILES.....	3
BURN REFERENCE NUMBERS.....	4
WASTE AND RESIDUE	4
FIRE DANGER CLASS (FDC), AND OPEN BURNING BANS.....	4
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Objectives of the Roadside Debris Burning Management System

1. To safely dispose of debris.
2. To dispose of debris in the most cost effective manner;
3. To complete debris burning operations within the allotted timeframe; No burning will take place after January 31st
4. To ensure that maintain the net area to be reforested (NAR) by disposing of debris piles;
5. To meet all legislative requirements

PPE

- 1 Mandatory – Appropriate footwear
- 2 Mandatory – Appropriate gloves
- 3 Mandatory –CSA approved hardhat
- 4 Mandatory – CSA approved safety glasses
- 5 Mandatory – Fire resistant Clothing (non-synthetic material)
- 6 Mandatory – High Visibility vest
- 7 Recommended – Particulate respirator

Open Burning Smoke Control Regulation

The rules outlined below are drawn from and consistent with the Provincial Ministry of Environment's *Open Burning Smoke Control Regulation* (OBSCR) in accordance with the *Environmental Management Act*.

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/34_145_93

MOE Burn Plans

Burn plans have to be approved by the MOE and the District Managers prior to the commencement of the burning program. Restrictions within plans vary depending on the District MOE Burn Plans. Consult appropriate District MOE Burn Plan before commencing burning.

In the absence of an approved MOE Burn Plan, burners must burn according to the Open Burning Smoke Control Regulation.

Venting Index Forecasts

There are three options for obtaining Venting Index Forecasts:

- **Environment Canada Website**
- <http://www.env.gov.bc.ca/epd/epdpa/venting/venting.html>
- **Phone the BC Ministry of Environment** @ 1.888.281.2992
- **Custom Spot Venting Forecasts**

Deleted: .

Custom Venting Forecasts may be provided by a qualified meteorologist providing a Venting Index forecast for a specified area that is better than the published Venting Index as provided by Environment Canada. This is referred to as a “spot forecast”. Custom Venting Forecasting will be discussed at annual prework if they are being done for upcoming season.

Rules of Venting Conditions Needed to Burn Piles

- **Either the AM or PM on Day of Ignition MUST be “Good” in order to burn. Forecasts are released at 7:00 am on Environment Canada Website.**
- **The next day forecast must be either “Good” or “Fair” as well to ignite. Day Two forecast.**

Burn Reference Numbers

Prior to the commencement of burning, burning reference numbers must be obtained from MOF. Suggest that burning reference numbers be obtained in September of each year. MOF Burning Reference Phone Number: 1-888-797-1717

Waste and Residue

Project leaders must ensure that all blocks have waste and residue surveys completed prior to commencement of burning. Please consult with appropriate supervisor in division to ensure completed prior to burning.

Fire Danger Class (FDC), and Open Burning Bans

No burning will take place if the Fire Danger Class (FDC) is 3 (moderate) or greater. Additionally no piles will be ignited when open burning bans are in effect; these can be viewed on the Protection Branch's website:

<http://www.bcwildfire.ca/hprScripts/WildfireNews/Bans.asp>

Fire Equipment and Training

There must be a person on the site who has been trained to an acceptable level in the areas of fire suppression techniques, fire behavior and fire line safety (e.g. S-100 Basic Fire Suppression training), and appropriate fire tools must be on site as outlined in the EPRP.

Open Fire Categories

There are two Open Fire categories applicable to Canfor operations (as specified within the *Wildfire Act* and *Wildfire Regulation*). The Program Leader will specify at prework which permit you will be working under.

Category 3 open fire²: "...an open fire that burns a) material concurrently in 3 or more piles each not exceeding 2 m height and 3 m in width, b) material in one or more piles each exceeding 2 m in height or 3 m in width, c) one or more windrows, or d) stubble or grass over an area exceeding 0.2 ha."

Resource Management Open Fire²: "...an open fire that a) burns unpiled slash over an area of any size, or b) is not a category 1, 2 or 3 open fire and is lit, fuelled or used for silviculture treatment, forest health management..."

Pile Burning Hazards/Safety Considerations

Safety must always be top priority when conducting pile burning operations. Hazards specific to pile burning, whether roadside or dispersed, include (but are not limited to):

- Smoke inhalation
- Trip, Slips and Falls associated with wet logs
- High convective winds created by burning
- Overhead hazards (residuals, snags, timber edge, etc.)
- Possible loss of escape routes by piles self igniting and piles broadcasting.
- Fuel/Propane Explosion – Fuel must be mixed @ following ratio **70% Diesel/ 30% Gas. All fuel transported to the site must be premixed to avoid any employee ever igniting with straight gas!** If using propane tiger torches ensure no propane leaks. Place the propane bottle on the ground when tightening or loosening the hose to tank connection so that the wrench being used is not at eye level. Note: Propane bottles have reversed thread to everyday fasteners. Ensure the correct direction is used to tighten or loosen the connection.

A burn strategy must be developed for each block that emphasizes safe implementation and minimizes the inherent risks associated with pile burning. The burn strategy for each block begins with a tailgate meeting. The tailgate meeting must be conducted for each block as each block is unique and environmental conditions can change over the course of a day.

- Each burn crew must conduct a tailgate meeting on the block prior to ignition and identify:
 - Each crew member will be provided with a block map;
 - All crew members have the appropriate PPE (hard hat, boots, high viz-vest, gloves, eye protection, particulate respirator);
 - Review that trucks are parked in a safe location (i.e. outside the perimeter of burning operations);
 - Burn teams to work in pairs and maintain communication throughout the burn plan;
 - Develop a burn/ignition plan for the block based on conditions below: (where each crew member will work and their line of travel so other crew members are not inadvertently put at risk);
 - Wind speed and direction;
 - Review slope hazards (increasing slope increases the risk of broadcast burning);
 - Review overhead hazards on the block. If overhead hazards exist burn these areas first before convective winds are created.
 - Develop escape routes for each crew member;
 - Create a test burn together prior to the crew dispersing to ensure block is safe to ignite. When burning always burn on the downwind side of the block as the start point with work to proceed upwind (this may mean dead-walking to get to the start point);

- Dispersed pile burning has the same hazards as roadside pile burning with the exception that the hazards are intensified with the increased number of piles on the block. Burners on dispersed blocks must be aware of the following hazards:
 - Higher risk of smoke inhalation due to more piles on the block (wear a particulate respirator, begin burning downwind and work upwind);
 - Convective winds created by burning intensifies thereby increasing the risk of unlit piles self-igniting (spotting), increasing the risk of broadcasting (loss of escape routes), and increases chances of wildlife trees blowing over;
 - Recommend limiting the number of burners on these blocks to reduce the smoke hazard, convective wind potential, and risk of broadcasting. Maximum of 4 burners on these blocks is a recommended practice. For smaller blocks, 2 burners may be more appropriate.
 - Thoroughly review burn/ignition plan with burners to ensure everyone knows how block will be lit. Burners must ensure they stick with ignition plan that was agreed upon at the tailgate meeting.

Additional Pile Burning Ignition Considerations

The following are additional pile burning considerations that must be considered prior to ignition:

- Piles should be ignited under Low or Nil Fire hazard.
- Piles should be ignited under saturated or snow-covered ground conditions in the following circumstances:
 - Piles that are immediately adjacent to standing timber;
 - Piles that adjacent to slopes > 40%;
 - Piles with no apparent slash break or have been piled adjacent to areas of continuous slash loading.
 - In situations when wind conditions are in excess of **30km/Hour** prior to ignition
 - When the block has **planted trees located adjacent to piles**.
- CTL Blocks.
 - Blocks should only be ignited under very wet or snow covered conditions
 - **Only Blocks that have mechanically created piles can be burnt. If blocks do not have piles established, DO NOT BURN dispersed slash. STOP and speak with Burn Program Leader.**
- No piles will be ignited within **500 meters of any logging equipment or decked wood** under any circumstances.
- If block is located right on an active haul road – **DO NOT Burn** – Burn on weekend when hauling is inactive.
- If active cutblock is adjacent to proposed burn block – delay burning until weekend to avoid conflicts.
- No piles are to be ignited within **5 km of a sawmill** unless the Program Leader has discussed the ignition plan with the Mill Manager and has been granted approval to ignite piles.

Pile Burning Ignition Considerations For Contractors

The following are pile burning considerations that contractors must consider prior to ignition:

- Contractors MUST have attended a Canfor pre-work prior to the start of burning. All burners must have a map on site and available at all times. The contractor must verify the block location and conduct a tailgate meeting with the crew PRIOR to ignition.
- Contractors will have previous experience in pile burning and must have an experienced burning supervisor on site at all times.
- Contractors must have valid fire insurance and fire fighting hand tools on site at all times.
- Contractors must burn in only Low or Nil Fire Hazard Conditions.
- When the contractor arrives on site, the contractor must assess the site specific and environmental conditions to determine if the risk of fire escape is too high. The contractor will postpone burning until conditions improve.
 - If duff (moss and fine litter) is dry to the touch, DO NOT burn.
 - If wind is blowing sufficiently hard to suspend a ribbon tied to a vehicle antenna horizontal, DO NOT burn (in this situation if block is snow covered contractor will be permitted to burn.
 - If wind will blow smoke towards residences and/or public highways, DO NOT burn.
- Contractors MUST conduct a test burn away from standing timber to verify the fire will not spread or spot beyond the debris pile.
- Contractors will observe the test burn until pile is fully engulfed before igniting remaining piles.
- If test piles begin to spread or spot, contractors will cease burning immediately and contact the Canfor supervisor.
- If site conditions change during the day, the contractor supervisor will decide if burning should continue or cease for the day.
- Contractors will be required to action the burn if an escape occurs.

Escapes

- Pile burns must be kept within close proximity of piles, broadcast burns are not acceptable.
- Any fire that leaves the immediate perimeter of a debris pile or the cutblock boundary is considered an escape. Follow the Escalation Process below for any escape.
- Any fire that is ignited within 1,000 meters of any industrial activity, regardless of the ignition source will be actioned. This is a legal requirement under the Wildfire Act and Wildfire Regulation. In the event of an escape, all procedures outlined in the EPRP will be followed. All escapes will be reported to the Program Leader.

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_04031_01

- All escapes must be reinspected by Canfor personnel the day following ignition. Severity of escape must be assessed and documented.

Escalation Process for Escapes

Where pile burns start to substantially broadcast over blocks, burners will follow the following escalation process:

- Stop igniting any new piles.
- **Scenario #1** - Burners to monitor progress of broadcast burn. If broadcast burn escapes and starts to burn adjacent timber and/or plantations the following process will be followed:
 - Staff or Contractor to contact the designated Canfor Pile Burning Lead identified in the Prework. Canfor Pile Burning Program Lead will then contact the following:
 - Duty Officer
 - Silviculture Coordinator/ Silviculture Manager
 - Fire Centre and report escape and loss of timber or plantation
 - Organize equipment to action fire. Utilize harvest contractor equipment closest to the fire.
 - Canfor Pile Burning Program Lead will continue to monitor block daily until the risk to a plantation or standing timber is no longer threatened. Provide updates to Duty Officer, Silviculture Coordinator/Silviculture Manager and Fire Centre
- **Scenario #2** - Burners to monitor progress of broadcast burn. If broadcast burn spreads across block but stops or only slightly creeps into the adjacent timber or plantation (**no loss of timber or plantations**), the following process will be followed:
 - Staff or Contractor to contact the designated Canfor Pile Burning Lead identified in the Prework. Canfor Pile Burning Program Lead will then contact the following:
 - Duty Officer
 - Silviculture Coordinator /Silviculture Manager
 - Assess the need to contact Fire Centre and report the broadcast burn.

Whenever any escape has occurred, the Pile Burning Program Lead will immediately complete an assessment of burning conditions and advise staff if burning should cease until conditions become more favorable to burn.

Infrared Scanning

- Blocks that have been treated throughout the fall and winter will be assessed for potential risk for flare-ups. Identified blocks will be scanned. Hotspots detected will be extinguished and monitored.
- A scanning package will be completed containing the following.
 1. List of all blocks completed in burning program
 2. Field treatment maps with clear illustration of areas treated
 3. Overview maps



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**Block 6689
from Viewpoint 093N068-157
OMAR Road, Manson Creek**

Disclaimer: The results of this simulation provide an estimate only of the impact of proposed harvest to the percent alteration. Results are limited to the quality and accuracy of TRIM digital elevation data, forest inventory data, and the model used to simulate proposed harvest activities.




Date: November 27, 2014

Block Information

Block: 6689
Operating Area: Manson
Latitude: 55-39-15
Longitude: 124-25-31
Elevation (m): 1150

Viewpoint Information

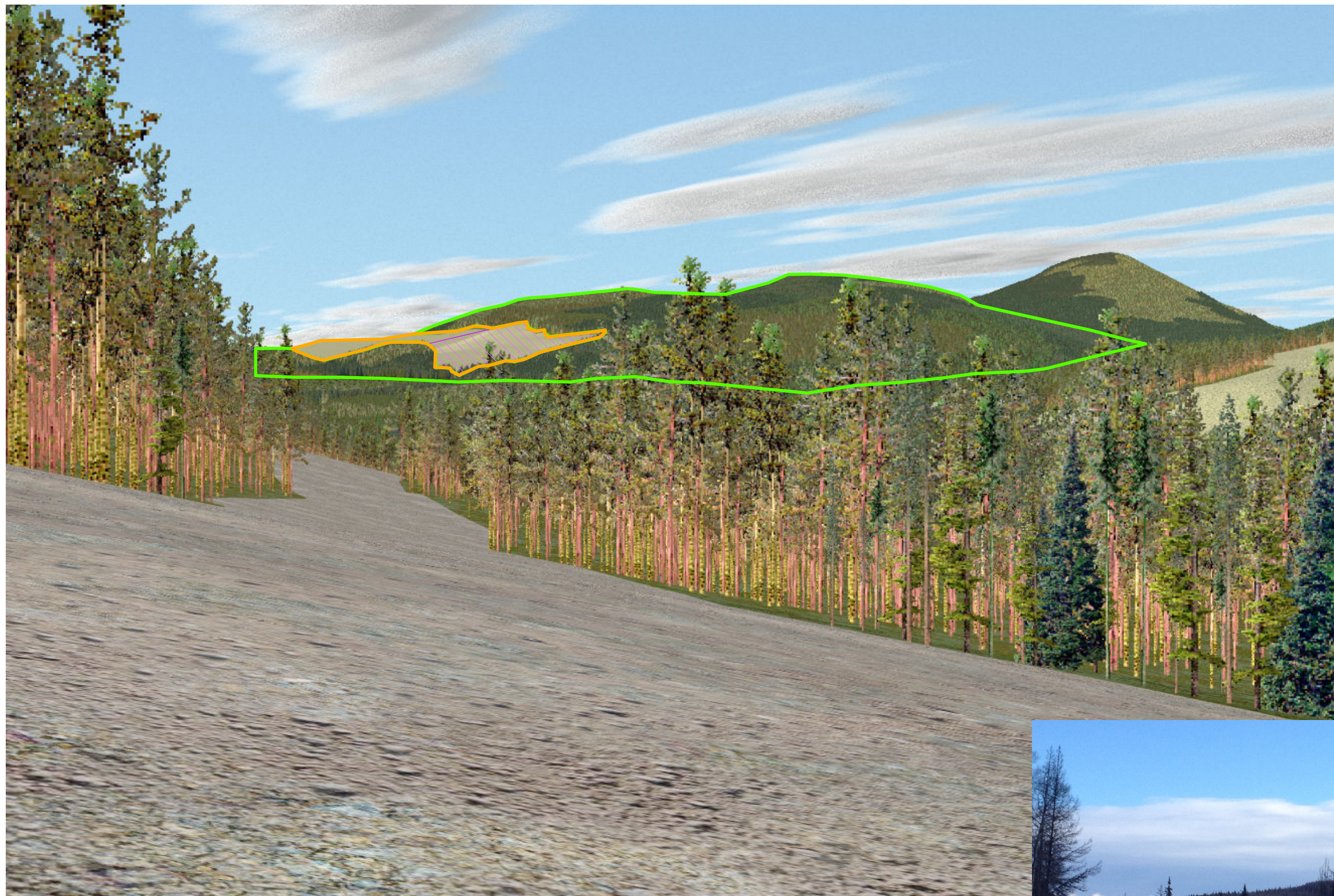
Viewpoint #: 093N068-157
Location: Manson Creek
Latitude: 55.6701
Longitude: 124.4768
Elevation (m): 957
Heading (deg): 128
Distance to Target: ~3 km


-  Proposed Alteration
-  VLI - Partial Retention
-  Visible Landform

**Visual Impact Assessment
Percent Alteration Calculation**

Total Area of Landform	Proposed Alteration(s)	Existing Alterations	Total Alteration	% Alteration
2.885	0.093	0.00	0.093	3.223

Areas are in relative digitized table units (sq. in.) as seen from the Viewpoint. All areas are approximate.






Canadian Forest Products Ltd. 

Block 6689
from Viewpoint 093N068-157
OMAR Road, Manson Creek

Disclaimer: The results of this simulation provide an estimate only of the impact of proposed harvest to the percent alteration. Results are limited to the quality and accuracy of TRIM digital elevation data, forest inventory data, and the model used to simulate proposed harvest activities.

Date: November 27, 2014

Block Information	Viewpoint Information
Block: 6689	Viewpoint #: 093N068-157
Operating Area: Manson	Location: Manson Creek
Latitude: 55-39-15	Latitude: 55.6701
Longitude: 124-25-31	Longitude: 124.4768
Elevation (m): 1150	Elevation (m): 957
	Heading (deg): 128
	Distance to Target: ~3 km

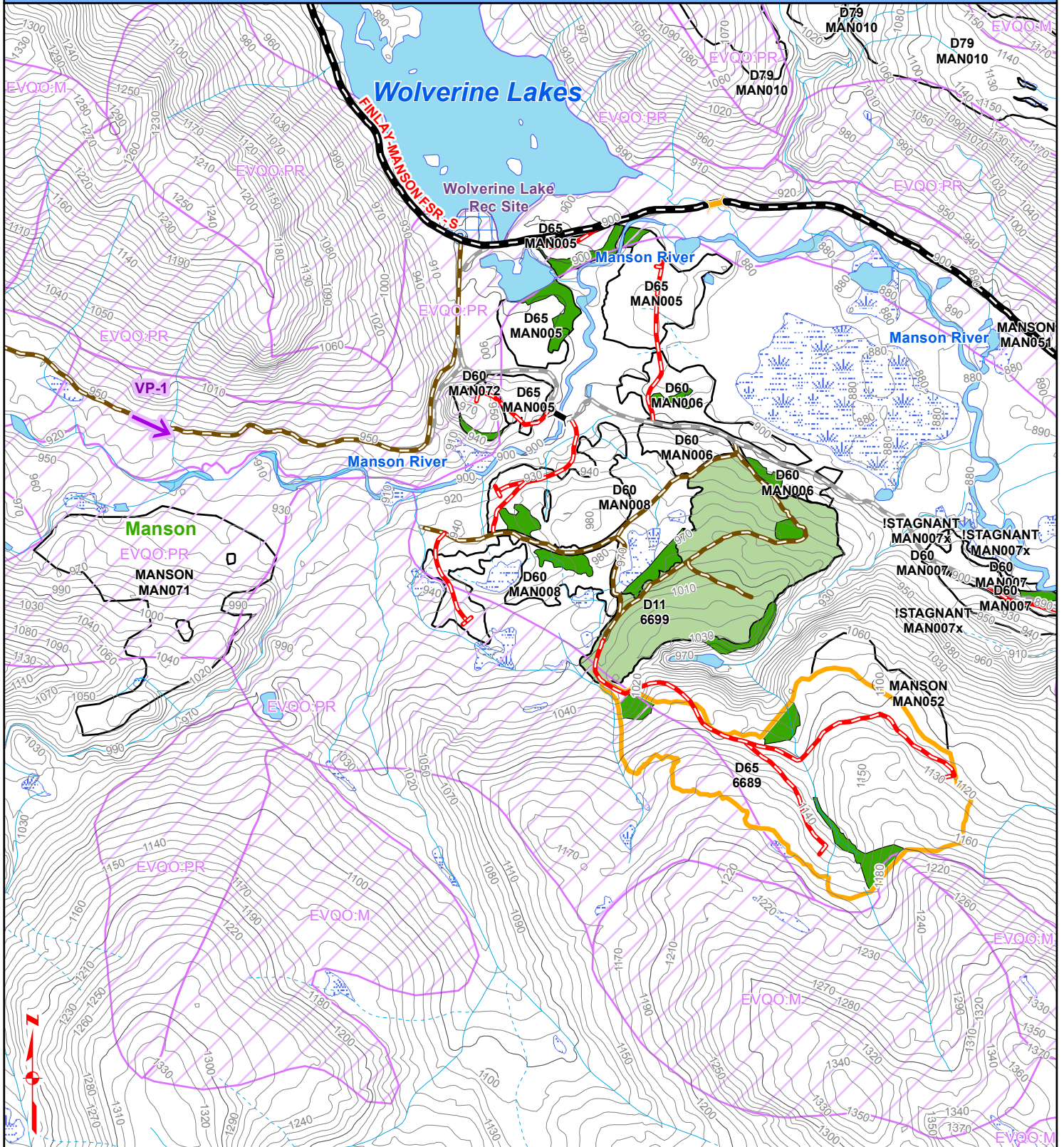
-  Proposed Alteration
-  VLI - Partial Retention
-  Visible Landform

Total Area of Landform	Proposed Alteration(s)	Existing Alterations	Total Alteration	% Alteration
5.122	0.494	0.00	0.494	9.64

Areas are in relative digitized table units (sq. in.) as seen from the Viewpoint. All areas are approximate.

VIA Overview Map

Lat: 55 39 15 Long: 124 25 31 F.L.: A15384 CP: D65 Block: 6689



Block Information

Gross Block Area (ha): 85
 Mapsheet: 093N068 Max. Elev. (m): 1193
 Operating Area: Manson Min. Elev. (m): 1017
 Nearest Community: Mackenzie

Scale = 1:24,000

Created By: Birk, Craig Date: 11/28/2014

Canadian Forest Products Ltd. **CANFOR**
 Mackenzie

Viewpoint Information

Viewpoint #: 093N068-157 (VP-1)
 Location: Manson Creek Road
 Latitude: 55.6685
 Longitude: 124.4705
 Elevation (m): 954
 Heading (deg): 115

Legend

Block of Interest	Recreation Site	Paved	VLI Polygon
Other Canfor Block	BCTS Adjacent Block	Gravel Main	Viewpoint and Viewing Direction
Reserve	Woodlots	Operational	
Previously Harvested	Canfor Operating Areas	Spur	
Satisfactorily Restocked	Private Land	Proposed	
Free Growing	Native Reserve	Temp Constructed	
Opening	Stream	Temp Proposed	
Park / Protected Area	Lake/River	Other/Barge Crossing	
Eco/Rec Reserve		Existing Bridge	
		Proposed Bridge	

March 2015 SFMP Update Summary of Changes

BCTS opted out of the Mackenzie SFMP process late in 2012 leaving Canfor as the only participant in the plan. This update includes the removal of references to BCTS from the plan, including the appendices and maps.

New DFA map to remove BCTS areas.

Section 5 – Strategic Level Planning

- re-titled to Indicators and Indicator Matrices to align with Canfor SFMP template
- add sections 5.1, 5.2, 5.3, 5.4, 5.5 and 5.6. This was a cut and paste from the PG SFMP.

Section 5.7 Indicators in the SFMP (formerly section 5.2 Indicators and Targets).

- We have reformatted this entire section to align with the Canfor SFMP template. There were no changes to indicator statements or targets for any of the indicators. This was basically a cut and paste exercise.
- Indicators were re-numbered to align with the Canfor common indicator matrix and the CSA core indicators. The indicators were reorganized within the document to follow the new numbering scheme.
- Summary of additions or modifications for individual indicator sections is outlined below:
 - o 1.1.1 Productive Forest Representation
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Updated the table in current Status to reflect what has been reported in the past two reporting periods and the ERA project that was completed for Canfor Mackenzie in 2012.
 - o 1.1.2 Forest area by species composition
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Added forecast statement from the PG SFMP – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
 - Added targets and comment under the Basis for the Target section.
 - o 1.1.3a Old Forest
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP. Adjusted this section to be applicable to the situation in the Mackenzie TSA.
 - o 1.1.3c Biodiversity Reserve Effectiveness
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Changed the forecast statement to align with the standardized indicator template – cut and paste from the PG SFMP.
 - Removed - Canfor has established a target of zero tolerance for compliance with strategies and orders pertaining to OGMAs and at this

time that target is expected to be met. This indicator is not easy to quantifiably forecast, however, it is important to identify what the accepted targets mean to Sustainable Forest Management.

- Added - By following the “Strategies” and “Means of Achieving Objectives and Targets” sections of this indicator detail sheet, it is anticipated that short- and long-term supply of desirable habitat for all Species of Management Concern (see Appendix B) will be maintained.
- 1.1.3d Patch Size
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP. Adjusted this section to be applicable to the situation in the Mackenzie TSA.
- 1.1.4a Wildlife trees
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 1.1.4c Dispersed retention levels
 - Added forecast statement – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
- 1.2.1a Species within the DFA
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 1.2.1b Sites of Biological Significance
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 1.2.3 Proportion of genetically modified trees in reforestation efforts
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Added forecast statement – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
- 1.4.2b Protection of identified sacred and culturally important sites
 - Added forecast statement – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
- 2.1.1a Regeneration Delay
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 2.1.1b Free Growing
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 2.2.1a Site Conversion
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 2.2.1b Permanent Access Structures
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- 2.2.2a Harvest Volume

- 5.2.2 Investment in training and skills development
 - Updated current status from most recent annual report
 - Added forecast statement – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
 - 5.2.3 Level of direct and indirect employment
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - 6.1.1 Understanding of the nature of Aboriginal title and rights
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Added forecast statement – previously the Mackenzie SFMP stated “Forecasting does not apply to this indicator”.
 - 6.3.2 Accidents
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - 6.3.3b Safety Policies
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - Adjusted target. It was 2, one safety policy for Canfor and one for BCTS. Now that BCTS is out adjusted it to 1 safety policy.
 - 6.4.1 Satisfaction (PAG)
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - 6.4.2 Input into Forest Planning
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - 6.5.1a SFM educational opportunities
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
 - 6.5.1b People reached through educational outreach
 - Added Means of Achieving Objective and Target section – cut and paste from the PG SFMP.
- Appendices
- Removed previous Appendix A. It was the MOU between BCTS and Canfor for the management of the SFMP and PAG. No longer needed.
 - Previous Appendix B – Public Advisory Group Sectors. This has been updated to reflect the current PAG membership. Re-named Appendix A
 - Previous Appendix C – Species within the DFA. No changes. Re-named Appendix B
 - Previous Appendix D – Analysis of Alternative Strategies. No changes. Re-named Appendix C
 - Previous Appendix E – Maps. Maps replaced with a new map. Re-named Appendix D

- Previous Appendix F – Indicator Matrix. Updated indicator numbers and order. Re-named Appendix E.
- Previous Appendix G – Glossary. No Changes. Re-named Appendix F.