SUSTAINABLE FOREST MANAGEMENT PLAN 4

2014 - 2015 ANNUAL REPORT

TFL 48

Canadian Forest Products Ltd.
Chetwynd Division
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2014 - 2015 ANNUAL REPORT

Canadian Forest Products Ltd.

Chetwynd Operations — TFL 48

Preparation Coordinated by:

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EXECUTIVE SUMMARY

As shown in the following Table; of the 59 Indicators 8 were not reported on (14%), 49 indicators met the targets (83%) and in 2 instances targets were not met (3%).

Table 1: Summary of 2014-2015 Performance

Indicator	Target			
	Met	Not Met	Not Reported (Next Date for Reporting)	Recommend Reporting be Suspended
2	✓			
2.2 Forest Types			2015-2016	
2.3 Late Seral Forest	✓			
2.4 Patch Size Distribution	✓			
2.5 Snags/Live Tree Retention	✓			
2.6 Wildlife Tree Patches	✓			
2.7 Average Minimum Width of RRZ and RMZ	✓			
2.8 Shrubs/Early Forest			2015-2016	
2.9 Wildlife Habitat Areas, Ungulate Winter Ranges and Dunlevy Creek Management Plan	✓			
2.10 Habitat Supply for Species of Public Concern			2015-2016	
2.11 Species of Management Concern	✓			
2.12 Coniferous Seeds	✓			
2.13 Deciduous Seeds and Vegetative Material	✓			
2.14 Class A Parks, Ecological Reserves and LRMP Designated Protected Areas	✓			
2.15 Known Values and Uses Addressed in Operational Planning	✓			
2.16 Conformance to Elements Pertinent to Treaty Rights	✓			
2.17 Free Growing Stands	✓			
2.18 Regeneration Declaration	✓			
2.19 Area of Forested Land Lost to Non-forest Industry			2015-2016	
2.20 Permanent Access Corridors			2015-2016	
2.21 Harvest Levels/Volumes	✓			
2.22 Allowable Annual Cut	✓			
2.23 Soil Degradation	✓			
2.24 Soil Disturbance Surveys	✓			
2.25 Use of Environmentally Friendly Lubricants			2015-2016	
2.26 Site Index		✓		
2.27 Coarse Woody Debris	✓			
2.28 Stream Crossing Quality Index	✓			
2.29 Action Plans for High Water Quality Concern Rating (WQCR)	✓			
2.30 Peak Flow Index	✓			
2.31 Watershed Reviews	✓			
2.32 Spills Entering Waterbodies	✓			
2.33 Carbon Sequestration			2017- 2018	
2.34 Ecosystem Carbon Storage (Mg) in the DFA			2017- 2018	
2.35 Range Opportunities	✓			
2.36 Harvest Method		✓		
2.37 Proportion of Harvesting Consistent with Visual Quality Objective	✓			
2.38 Back Country Condition	✓			

Indicator	Target			
	Met	Not Met	Not Reported (Next Date for Reporting)	Recommend Reporting be Suspended
2.39 Recreational Sites	✓			
2.40 Consistency with Third Party Action Plans	✓			
2.41 Waste	✓			
2.42 Forest Health	✓			
2.43 Proportion of Completed Forest Health Action Plans	✓			
2.44 Community Donations	✓			
2.45 Local Employment	✓			
2.46 Summer and Fall Deliveries	✓			
2.47 Level of Investment in Training and Skills Development	✓			
2.48 Level of Direct and Indirect Employment	✓			
2.49 Level of Aboriginal Participation in the Forest Economy	✓			
2.50 First Nations Awareness Training	✓			
2.51 Consultation and Information Sharing with First Nations on Management Plans	✓			
2.52 Diversifying the Local Economy	✓			
2.53 Safety Over the DFA	✓			
2.54 Public Advisory Committee Satisfaction	✓			
2.55 Public Advisory Committee	✓			
2.56 Public Advisory Committee Terms of Reference	✓			
2.57 Educational Opportunities	✓			
2.58 Response to Public Inquiries	✓			
2.59 Distribution/Access to SFM Plan, Annual Reports and Audit Results	✓			

ACKNOWLEDGEMENTS

We would like to thank the Chetwynd Woodlands staff and BC Timber Sales (Dawson Creek) staff for compiling or providing data.

We would also like to thank the Public Advisory Committee members and advisors for their continued input to the Sustainable Forest Management process and providing input on the draft document. This report was provided to the PAC on October 22, 2015 and revised on October 30, 2015. The final draft was completed November 6, 2015.

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1 INTRODUCTION & OVERVIEW

Canadian Forest Products Ltd. (Canfor) achieved registration under the Canadian Standards Association CAN/CSA Z809-96 Sustainable Forest Management System for Tree Farm Licence (TFL) 48's (see Figure 1) forestry operations in July 2000. A public group — the Chetwynd Public Advisory Committee (PAC) — was formed at the beginning of 2000 to help Canfor identify quantifiable local-level values, objectives indicators and targets for sustainable forest management. The original indicators and targets identified by the PAC were detailed with associated forest management practices to achieve those targets in the Sustainable Forest Management Plan for Tree Farm Licence 48 (Canfor 2006). In 2006 BC Timber Sales (BCTS) joined the registration and a joint certificate was issued to Canfor and BCTS. In 2011 the Sustainable Forest Management Plan 4 was updated to the CAN/CSA Z809-08 Sustainable Forest Management standard. In 2013 separate registration certificates were provided to Canfor and BCTS.

In 2014, the Sustainable Forest Management Plan was updated to remove the Management Plan content which basically consisted of the Timber Supply Data used for the determination of the Allowable Annual Cut (AAC) for TFL 48. This resulted in the creation of two separate stand-alone documents; SFMP #5 and the TFL 48 Management Plan.

In addition, a change was made to the period of the reporting year for the TFL 48 SFM Annual Report. The reporting period will now coincide with the government fiscal reporting year rather than the calendar year, therefore this Annual Report will cover all activities from January 1, 2014 to March 31, 2015. Subsequent Annual Reports will cover the period from April 1 to March 31 annually. The Public Advisory Committee was notified, and agreed to this change at the October 22, 2014 PAC meeting.

The Sustainable Forest Management Plan #5 will be the document referenced for the 2015-2016 Annual Report spanning the April 1, 2015 to March 31, 2016 reporting year. The 2014-2015 Annual Report is a summary report of activities completed under SFMP# 4 for the period January 1, 2014 to March 31, 2015. It reports on the status of each indicator and where appropriate suggests revisions to indicators and targets, or the way they are measured.

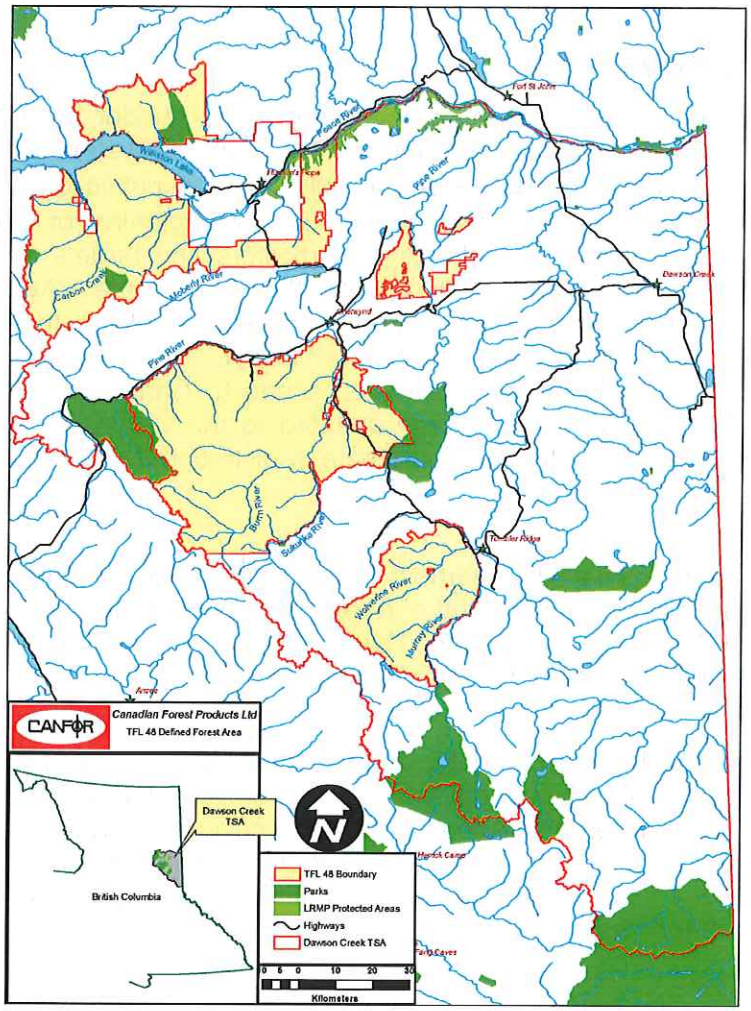


Figure 1: Tree Farm Licence 48

This report is prepared as an annual report required by the CSA standard. Annual performance as indicated in this report is for Tree Farm Licence (TFL) 48 which is the defined area for Canfor's CSA certification. In this report, each Indicator is reiterated, and a brief status report is provided. For additional information on the Indicators and Objectives, or the practices involved, the reader should refer to Canfor's Sustainable Forest Management Plan #4 located on the Canfor corporate website at: http://www.canfor.com/responsibility/environmental/certification

The Public Advisory Committee received a copy of this report (SFMP 4) to review October 22, 2015 at the fall 2015 Public Advisory Committee meeting.

1.1 OVERVIEW

The format of the remainder of this document and the detailed status of each indicator are provided below. *This document is subject to review by the Public Advisory Committee (PAC).*

Information was provided by BCTS for harvesting, road construction and silviculture activity for activities on the TFL and was included into the applicable indicators. As of the date of preparation and submission of this report to the Chetwynd Public Advisory Committee for review and comment Chetwynd Mechanical Pulp had not provided information about their operations on the TFL. Should this information become available before publication to Canfor's external website, the Draft Annual Report will be updated and re-sent to the PAC for review prior to publication. At any time upon receiving the updated information from Chetwynd Mechanical Pulp, the 2014 – 2015 Annual Report will be updated and reposted.

1.2 SIGNIFICANT CHANGES

A significant development in the management of TFL 48 is the revision of SFMP4 from the CSAZ809-02 to the CSA Z809-08 Standard. SFMP 4 (2011) has also been updated to reflect the amendments made to the Acts and Regulations that regulate the forestry industry. Of particular importance is the amendment in the timing of Allowable Annual Cut (AAC) Determinations from 5 to 10 years. This has impacted the reporting period for a number of indicators which are identified in Table 1 at the beginning of this report. Changes to the Tree Farm Licence Regulation have also eliminated the need to identify Management Plan results and strategies for specific areas of forest management such as silviculture for example. All of the Indicators and Targets within SFMP 4 are meant to address CSA requirements and not the TFL Management Plan.

In 2013, BCTS was granted separate certification under the CAN/CSA Z809-08 standard. For reporting purposes, BCTS indicator performance information has been included in this annual report.

The 2013 reporting year also saw the initiation of an expedited Timber Supply Review (TSR) conducted for TFL 48 in response to an application for an AAC uplift to effectively salvage a greater proportion of the mountain pine beetle affected timber within the TFL. As of the date of this report, the Ministry of Forests Lands and Natural Resource Operations still has not made a determination regarding the AAC uplift request made by Canfor. In support of the AAC uplift request, Canfor has submitted a stand-alone TFL 48 Management Plan (SFMP #5) to the MFLNRO for approval. Upon approval of Management Plan #5, SFMP # 4 was revised to remove the Management Plan #4 content which became redundant with the approval of stand-

alone Management Plan #5. Management Plan #5 was approved in February 2015 and will be in effect starting April 1, 2015.

2 SFM INDICATORS AND OBJECTIVES

2.1 ECOSYSTEM REPRESENTATION

Criterion 1:	**Element(s): 1.1, 1.2, 1.4**
Biological Diversity	Ecosystem Diversity; Species Diversity; Protected Areas and Sites of Special Biological and Cultural Significance
CSA Core Indicator(s): 1.1.1: Ecosystem area by type **1.2.1:** Degree of habitat protection for selected focal species, including species at risk **1.2.2:** Degree of suitable habitat in the long term for selected focal species, including species at risk **1.4.1:** Proportion of identified sites with implemented management strategies	
Indicator Statement	**Target Statement**
Proportion of rare ecosystem groups reserved from harvest	100% of rare ecosystems reserved from harvest
Value(s): Ecosystem Diversity, Native Species Richness, Protected areas and sites of special geological, biological, or cultural significance	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within DFA over time. We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness. We will implement management strategies appropriate to the long term maintenance of protected areas and sites of special geological, biological, or cultural significance.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 45 blocks were harvested on the TFL by Canfor and BCTS. Of those 45 cut blocks, Canfor harvested 39 blocks and BCTS sold 6 timber sales. Three Canfor blocks were identified to potentially contain rare ecosystems however only one block actually identified a rare ecosystem. A portion of the identified area was removed from the harvest area as a Wildlife Tree Patch, another was removed as it was identified as Non-Productive Natural, and the other area was only about a hectare in size and so was harvested.

Three BCTS cut blocks also had potentially identified the presence of rare ecosystems in the mapping phase however did not actually identify any rare ecosystems in the field. All blocks were in compliance with identifying and reserving rare eco as required.

REVISIONS:

A revision was made to this indicator and was reviewed and endorsed by the PAC on January 30, 2014: Rare sites need to truly reflect the site series. For areas between 1-5ha in size the rare ecosystem needs to be 100% of the site series. Sites <1 ha will not be reserved from harvest. For site series complexes there needs to be >60% representation of an identified rare site series and these site series complexes will be reserved when >5ha in size. This information will guide management and reporting of performance under the indicator.

2.2 FOREST TYPES

Criterion 1:	Element(s): 1.1
Biological Diversity	Ecosystem Diversity
CSA Core Indicator(s): 1.1.2: Forest area by type or species composition	
Indicator Statement	Target Statement
Percent distribution of forest type (deciduous, deciduous mixedwood, conifer mixedwood, conifer) >20 years old across DFA	100% of forest type groups will be within the target range (Conifer - 75-85%, Conifer Mixedwood - 4-6%, Deciduous - 9-15%, Deciduous Mixedwood - 2-4%)
Value(s): Ecosystem Diversity	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within the DFA over time.	

STATUS AND COMMENTS:

This indicator is reported on every 5 years. The table below represents the status of this indicator at the end of 2010 and was reported on in the 2010 Annual Report. The next time this indicator will be updated will be in 2015 and will be reported on in the 2015-2016 annual report.

Table 2: Forest Type Distribution Current and FDP Status and Target Ranges

	Area by Forest Type					
Forest Type	MP 3 %[1]	2005	%	2010	%	Target Range
Coniferous	80%	407,906	80%	423,107	80%	75-85%
Mixed - Coniferous	5%	26,477	5%	27,374	5%	4-6%
Mixed - Deciduous	3%	17,723	3%	18,121	3%	2-4%
Deciduous	12%	62,437	12%	63,743	12%	9-15%
Grand Total		514,543	100%	532,345	100%	

REVISIONS:

No revisions are suggested for this indicator or objective

[1] MP 3 data is shown as a percent due to a slight change in the way this indicator is reported. The indicator has changed to reporting only stands greater than 20 years old and there have been some changes to the area of TFL 48.

2.3 LATE SERAL FOREST

Criterion 1:	Element(s): 1.1
Biological Diversity	Ecosystem Diversity
CSA Core Indicator(s): 1.1.3: Forest area by seral stage or age class	
Indicator Statement	Target Statement
The minimum acceptable proportion (%) of late seral forest by Natural Disturbance Unit (NDU) and NDU by BEC	The minimum proportion (%) of late seral forest by NDU and NDU by BEC as shown in Table11
Value(s): Ecosystem Diversity	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within DFA over time.	

STATUS AND COMMENTS:

As part of the annual reporting, an assessment on the impact of the existing and proposed harvest was made on the late seral targets for TFL 48. The following provides a summary of the results:

All targets are met for the deciduous NDU/BEC units (See Table 3).

Targets are met for the conifer NDU/BEC units: **Boreal Plains; Boreal Foothills – Valley;** and **Boreal Foothills – Mountain; Omineca – Valley** (See Table 4).

The only targets not being met is the **Omineca Mountain** and **Omineca - Wet Mountain units**. These units did not achieve the target at the overall landscape level however each NDU/BEC combination did meet their identified targets. Both Omineca Mountain and Wet Mountain units have been in deficit in the amount of late seral since this indicator was developed. However, the Omineca – Mountain region continues to decrease in its deficit. Currently there is no logging planned in the wet mountain in the near future. Planned operations in these regions will be closely monitored and harvesting operations will ensure that there is sufficient near old seral forest to recruit to old seral forest.

REVISIONS:

No revisions are suggested for this indicator or objective.

Table 3: Current and Projected Harvest Status of Late Seral Forest – Deciduous

		<40				40-100				101+								
		Current		Projected		Current		Projected		Current			Projected					
NDU	BEC	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Surplus (Deficit)	Ha	%	Surplus (Deficit)	Total Forested Area	101+ Target	Years to Meet Target
Boreal Plains - Deciduous	BWBSmw1	1,179	27%	1,097	25%	879	20%	1,311	30%	2,244	52%	15,696	1,893	44%	1,463	4,302	10%	
	BWBSwk1	63	26%	7	3%	117	49%	166	69%	59	25%	1,531	67	28%	43	239	10%	
	ESSFmv2	1	50%	0	0%	1	50%	1	50%	0	0%	203	1	50%	1	2	10%	
	SBSwk2		0%		0%		0%		0%	0	0%	0	0	0%	0	0	N/A	
Boreal Plains Total		1,243	27%	1,104	24%	997	22%	1,478	33%	2,303	51%	1,849	1,961	43%	1,507	4,543	10%	0
Boreal Foothills - Valley - Deciduous	BWBSmw1	4,488	62%	934	13%	1,457	20%	2,410	33%	1,347	18%	618	1,385	19%	656	7292	10%	
	BWBSwk1	158	63%	131	53%	37	15%	91	37%	54	22%	29	26	10%	1	249	10%	
	BWBSwk2	122	29%	100	24%	32	8%	54	13%	267	63%	225	268	64%	226	421	10%	
	SBSwk2	2,773	72%	1,389	36%	546	14%	1,926	50%	510	13%	127	515	13%	132	3,829	10%	
Boreal Foothills Total		7,541	64%	2,554	22%	2,072	18%	4,481	38%	2,178	18%	999	2,194	19%	1,015	11,791	10%	0
Grand Total		8,784	46%	3,658	22%	3,069	20%	5,959	35%	4,481	35%	4,481	4,155	25%	4,155	16,334		

Table 4: Current and Projected Harvest Status of Late Seral Forest – Coniferous

		<40				40-120				121-140				141+						Total Forested Area	141+ Target	Years to Meet Target
		Current		Projected		Current		Projected		Current		Projected		Current			Projected					
NDU	BEC	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Surplus (Deficit)	Ha	%	Surplus (Deficit)			
Boreal Plains	BWBSmw1	2,098	43%	2,759	57%	97	2%	73	1%	1,703	35%	1,059	22%	975	20%	731	983	20%	739	4,873	5%	
	BWBSwk1	1,227	26%	1,444	31%	495	11%	458	10%	1,582	34%	1,361	29%	1,327	29%	1,095	1,367	30%	1,135	4,631	5%	
	ESSFmv2	12	1%	168	12%	36	3%	21	2%	545	39%	478	34%	801	57%	731	724	52%	654	1,394	5%	
	SBSwk2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	N/A	0	0%	0	0	N/A	
Boreal Plains Total		3,337	31%	4,371	40%	628	6%	552	5%	3,830	35%	2,898	27%	3,103	28%	1,250	3,074	28%	1,221	10,898	17%	0
Boreal Foothills - Valley - Conifer	BWBSmw1	1,110	18%	1,844	30%	243	4%	243	4%	1,435	23%	1,094	18%	3,407	55%	2,973	3,014	49%	2,580	6,195	7%	
	BWBSwk1	229	20%	672	59%	99	9%	30	3%	109	10%	71	6%	708	62%	628	373	33%	293	1,145	7%	
	BWBSwk2	7	1%	3	0%	76	8%	69	7%	618	61%	384	38%	310	31%	239	555	55%	484	1,011	7%	
	SBSwk2	4,282	25%	7,061	42%	448	3%	328	2%	3,948	24%	3,369	20%	8,116	48%	6,940	6,038	36%	4,862	16,794	7%	
Boreal Foothills - Valley - Conifer Total		5,628	22%	9,580	38%	866	3%	670	3%	6,110	24%	4,918	20%	12,541	50%	6,758	9,980	40%	4,197	25,145	23%	0
Boreal Foothills - Mountain - Conifer	ESSFmv2	2,836	22%	5,989	46%	400	3%	270	2%	2,698	21%	1,794	14%	6,988	54%	5,696	4,870	38%	3,578	12,922	10%	
	ESSFmv4	6	0%	0	0%	22	2%	27	2%	463	38%	319	26%	731	60%	609	875	72%	753	1,222	10%	
	ESSFwc3	17	5%	248	79%	0	0%	13	4%	207	66%	3	1%	89	28%	58	49	16%	18	313	10%	
	ESSFwk2	496	15%	1,395	42%	34	1%	45	1%	1,058	32%	571	17%	1,696	52%	1,368	1,273	39%	945	3,284	10%	
Boreal Foothills - Mountain - Conifer Total		3,355	19%	7,632	43%	456	3%	355	2%	4,426	25%	2,687	15%	9,504	54%	3,649	7,067	40%	1,212	17,741	33%	0
Omineca - Valley	BWBSmw1		0%		0%	0	0%	0	0%	0	0%	0	0%	0	0%	N/A	0	0%	0	0	N/A	
	SBSwk2	15	1%	651	44%	12	1%	3	0%	712	49%	259	18%	727	50%	624	553	38%	450	1,466	7%	
Omineca - Valley Total		15	1%	651	44%	12	1%	3	0%	712	49%	259	18%	727	50%	390	553	38%	216	1,466	23%	0
Omineca - Mountain	ESSFmv2	78	3%	1,566	54%	41	1%	33	1%	1,309	45%	458	16%	1,480	51%	986	851	29%	357	2,908	17%	
Omineca - Mountain Total		78	3%	1,566	54%	41	1%	33	1%	1,309	45%	458	16%	1,480	51%	(-207)	851	29%	-836	2,908	58%	0
Wet Mountain	ESSFmv2	62	8%	62	8%		0%		0%	44	6%	44	6%	637	86%	451	637	86%	451	743	25%	
	ESSFwc3	14	6%	15	7%	1	0%		0%	0	0%	1	0%	215	93%	158	214	93%	157	230	25%	
	ESSFwk2	1,053	49%	1,043	48%	5	0%	43	2%	42	2%	46	2%	1,060	49%	520	1,029	48%	489	2,160	25%	
	SBSwk2	1,000	43%	830	35%	13	1%	176	7%	352	15%	358	15%	985	42%	398	985	42%	398	2,350	25%	
Wet Mountain Total		2,129	39%	1,950	36%	19	0%	219	4%	438	8%	449	8%	2,897	53%	-1,709	2,865	52%	-1,741	5,483	84%	80
Grand Total		14,542	23%	25,750	40%	2,022	3%	1,832	3%	16,825	26%	11,669	18%	30,252	48%		24,390	38%		63,641		

2.4 PATCH SIZE DISTRIBUTION

Criterion 1:	Element(s): 1.1
Biological Diversity	Ecosystem Diversity
CSA Core Indicator(s) 1.1.3: Forest area by seral stage or age class	
Indicator Statement	Target Statement
Percent area by Patch Size Class (0-50, 51-100 and >100 ha) by Natural Disturbance Unit (NDU) by early or mature and proportion of mature interior forest condition.	Targets by Patch Size Class by NDU by early or mature are shown in Table 15.
Value(s): Ecosystem Diversity	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within DFA over time.	

STATUS AND COMMENTS:

In the 2014 – 2015 reporting year, Canfor has met the patch size targets in the Early Patch Size. The target for the Wet Mountain NDU remains equal with the target for this NDU. This will be monitored to ensure any blocks developed within the Wet Mountain NDU, are all less than 100 ha to stay below the target of <60%.

Currently there is no logging planned in the wet mountain in the near future. If harvesting is proposed in that area in the near future, we will consider a strategy of logging a mixture of both smaller and medium sized patches to ensure we do not exceed the large patch target of <60% while maintaining a mixture of various aged forests across the TFL and specifically, within the Wet Mountain NDU.

In all other cases (current and projected) for both early and mature patch size distribution the analysis shows that forest practices are maintaining the relative abundance of the various aged forests across the TFL.

Table 5: Early Patch Size Class Current and Projected

NDU	Current/ Projected	Patch Class (ha)								Total
		<50		50-100			100+			
		ha	%	ha	%	Target	ha	%	Target	
Boreal Plains	Current	1,406	7%	593	3%	<15%	17,387	90%	>50%	19,386
	Projected	1,208	5%	415	2%	<15%	18,933	92%	>50%	20,556
Boreal Foothills/Omineca	Current	4,439	9%	5,404	10%	<20%	41,930	81%	>40%	42,160
	Projected	3,354	6%	4,469	7%	<20%	52,106	87%	>40%	67,909
Wet Mountain	Current	1,228	19%	1,513	22%	<25%	4,146	60%	<60%	6,868
	Projected	1,298	19%	1,513	22%	<25%	3,933	58%	<60%	8,746

Table 6: Mature Patch Size Class Current and Projected

NDU	Current/ Projected	Patch Class (ha) <50 ha	<50 %	50-100 ha	50-100 %	100+ ha	100+ %	100+ Target	Grand Total	Total Interior Forest %	Interior Forest Target
Boreal Plains	Current	9,178	13%	4,434	6%	55,851	80%	>70%	69,463	48%	>30%
	Projected	9,416	14%	4,069	6%	52,195	79%	>70%	65,680	45%	>30%
Boreal Foothills/Omineca	Current	18,334	7%	8,050	3%	231,337	90%	>80%	257,721	58%	>35%
	Projected	19,202	8%	9,204	4%	204,191	88%	>80%	232,597	54%	>35%
Wet Mountain	Current	2,308	3%	317	0%	75,789	97%	>85%	78,414	62%	>60%
	Projected	2,285	3%	381	0%	76,314	97%	>85%	78,980	62%	>60%

REVISIONS:

No revisions are suggested for this indicator or objective.

2.5 SNAGS/LIVE TREE RETENTION

Criterion 1:	**Element(s): 1.1, 1.2**
Biological Diversity	Ecosystem Diversity, Species Diversity
CSA Core Indicator(s): 1.1.4: Degree of within-stand structural retention **1.2.2:** Degree of suitable habitat in the long term for selected focal species, including species at risk	
Indicator Statement	Target Statement
Number of snags and/or live trees (>23.0 cm dbh) per ha on prescribed areas	Retain annually an average of at least 2 snags and/or live trees (>23.0 cm dbh) per hectare on prescribed areas
Value(s): Ecosystem Diversity, Native Species Richness	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within DFA over time. We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness.	

STATUS AND COMMENTS:

In the 2014 – 2015 reporting year, there were 45 blocks harvested to which this indicator applied; thirty-nine were logged by Canfor and the remaining six were BCTS blocks. There were 6 instances where retention was not implemented due to >10% of the gross block area being designated under Wildlife Tree Patch (WTP) as the habitat element (snags/live trees) are considered well represented in the WTP area. T4027 was logged using a cable yarder system and for safety and feasibility reasons no individual snag/live tree retention was prescribed for this block. Six blocks (T4257, T4258, T4259, T4260, T4339 and T4344) were not prescribed a Snag Tree Retention due to the fact that the average DBH on those blocks, was below the minimum required dbh of >23.0 cm for trees retained on the block.

Five out of six BCTS blocks were above the 10% WTP allocation per block as well as having Leave Trees prescribed at a minimum of two trees remaining per hectare. Though the remaining one block did not have a designated Wildlife Tree Patch greater than 10%, it still had the required Leave Trees prescribed.

Block	Area of Required Snag/Live Tree Retention (ha)	Area of Snag/Live Tree Retention in SP (ha)	Applied Correctly	Rationale
T2133	43.8	43.8	Yes	10.6 % WTP
T2134	70.6	70.6	Yes	
T2136	106.7	106.7	Yes	
T2137	199.7	199.7	Yes	
T2138	175.4	175.4	Yes	
T4027	4.7	4.7	Yes	Cable block, leave trees would impede yarding
T4115	235.1	235.1	Yes	
T4119	264.6	264.6	Yes	
T4193	0	0	Yes	25.5 % WTP
T4201	99.3	99.3	Yes	
T4209	48.6	48.6	Yes	
T4229	90.1	90.1	Yes	
T4231	116.5	116.5	Yes	
T4255	66.3	66.3	Yes	15.4 % WTP
T4257	44.3	44.3	Yes	Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 19.8 cm
T4258	0	0	Yes	14 % WTP, Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 18.9 cm
T4259	0	0	Yes	22 % WTP, Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 20.8 cm
T4260	41.1	41.1	Yes	Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 22.2 cm
T4269	71.6	71.6	Yes	
T4270	8	8	Yes	

T4271	7	7	Yes	
T4275	38.9	38.9	Yes	
T4278	57.6	57.6	Yes	
T4304	135.7	135.7	Yes	
T4313	2.7	2.7	Yes	
T4323	15.2	15.2	Yes	
T4325	0	0	Yes	13.5 % WTP
T4334	41.2	41.2	Yes	
T4336	0	0	Yes	18.3 % WTP
T4337	20.3	20.3	Yes	
T4339	76.6	76.6	Yes	Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 19.0 cm
T4344	21.4	21.4	Yes	Snag Tree Retention not prescribed as DBH <23.0 cm; avg DBH = 21.3 cm
T4349	120.2	120.2	Yes	
T4358	10	10	Yes	
T4373	35.7	35.7	Yes	
T4374	0	0	Yes	22.8 % WTP
T4377	33.2	33.2	Yes	
T4415	5.3	5.3	Yes	
T4445	2.4	2.4	Yes	
A89917-T4157	172.7	172.7	Yes	11.2 % WTP; Leave Trees prescribed
A89918-T4397	154.7	154.7	Yes	Leave Trees Prescribed min. 2/ha
A89919-T4402	53.9	53.9	Yes	25.6 % WTP; Leave Trees prescribed
A89921-1-T4413	7	7	Yes	23.0 % WTP; Leave Trees prescribed
A89921-2-T4414	119.5	119.5	Yes	20.3 % WTP; Leave Trees prescribed
A90918-T4412	11.5	11.5	Yes	17.4 % WTP; Leave Trees prescribed

REVISIONS:

The indicator DBH target was revised to match the DBH noted in the Target statement (23.0 cm). This revision was reviewed and endorsed by the PAC on May 29, 2014 and was incorporated in the 2013 annual report for this indicator. No further revisions are suggested for this indicator or objective.

2.6 WILDLIFE TREE PATCHES

Criterion 1:	Element(s): 1.1
Biological Diversity	Ecosystem Diversity
CSA Core Indicator(s): 1.1.4: Degree of within-stand structural retention	
Indicator Statement	Target Statement
Cumulative wildlife tree patch percentage in blocks harvested since 1995 by landscape unit by BEC sub zone	Cumulative wildlife tree patch % will be at least 8% by BEC sub zone
Value(s): Ecosystem Diversity	
SFM Objective: We will conserve or restore ecosystem diversity within the natural range of variation within DFA over time.	

STATUS AND COMMENTS:

The table below summarizes the current status for WTP retention levels for blocks on which harvesting began since 1995 and to the end of March 31, 2015. The WTP retention levels exceed the target in all subzones except the ESSFwc3. However in this BEC subzone 60% or 411 ha of the 689 ha under prescription have been harvested with an irregular shelterwood retention system. Typically in these irregular shelterwoods 55% of the area is retained between the trails so 55% of the 411 ha is 226 ha plus the 39 ha of WTP prescribed results in a total of 265 ha of retention or 38% of the total area under prescription. Therefore the target is considered achieved. BEC zones approaching the minimum targets of 8% WTP will be monitored to ensure that the retention levels do not drop below the minimum 8%.

Table 7: Summary of WTP's in Areas Harvested Since 1995

BEC Sub Zone	Total Area Under Prescription (ha)	WTP Area (ha)	WTP %
BWBSmw	9,317	1,341	14%
BWBSwk	4,213	679	16%
ESSFmv	9,833	997	10%
ESSFwc	689	39	6%
ESSFwk	4,998	549	11%
SBSwk	14,898	2,215	15%
Total	**43,949**	**5,820**	**13%**

REVISIONS:

No revisions are suggested for this indicator or objective.

2.7 AVERAGE MINIMUM WIDTH OF RRZ AND RMZ

Criterion 1:	Element(s): 1.2, 3.2
Biological Diversity	Species Diversity; Water Quality and Quantity
CSA Core Indicator(s): 1.2.1: Degree of habitat protection for selected focal species, including species at risk **3.2.1:** Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	**Target Statement**
Average minimum width of retention by Riparian Reserve Zone or Riparian Management Zone by appropriate stream, lake or wetland classification within cutblocks	We will meet or exceed the regulatory retention widths by Riparian Reserve Zone by appropriate stream, lake or wetland classification within cutblocks
Value(s): Native Species Richness, Water Quality and Quantity	
SFM Objective: We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness. We will maintain water quality and quantity.	

STATUS AND COMMENTS:

The following table (Table 8) shows the summary of riparian reserve and management zones for the 2014 – 2015 year as well as the cumulative average from 2000 to the end of March 31, 2015. The targets have been met in 2014 - 2015 and all previous years. It should be noted that the RMZ actual widths for the cumulative 2000 to March 31, 2015 are showing averages below the required widths for some riparian classes. However, this is because the areas were managed under an RRZ and was not split between RRZ and RMZ. The total RMA is still exceeding the requirements in all Stream and Wetlands classes.

Table 8: Summary of Riparian Reserve and Management Zones in 2000 – 2015

Year	Stream, Wetland or Lake Class	Total Stream Length (m[b])	RRZ – Required Width (m[c])	RRZ–Actual Width (m[c])	RMZ Required Width (m[c])	RMZ – Actual Width (m[c])	Total RMA – Required width (m[b])	Total RMA – Actual width (m[b])
2014	S1 (n=0)	-	50	-	20	-	0	-
	S2 (n=3)	**5,232**	30	31.5	20	22.7	50	54.3
	S3 (n=4)	**3,790**	20	20.8	20	21.6	40	42.5
	S4 (n=4)	**1,461**	0	0.0	30	32.2	30	32.2
	S5 (n=6)	**17,901**	0	0.0	30	31.9	30	31.9
	S6 (n=89)	**74,459**	0	0.0	20	22.5	20	22.5
	W3 (n=3)	**2,195**	0	0.0	30	31.9	30	31.9
	W5 (n=0)	-	10	-	40	-	50	-
Average 2000 to March 31, 2015	S1	**34,694**	50	104.4	20	4.8	70	109.2
	S2	**36,550**	30	78.4	20	14.7	50	93.2
	S3	**46,736**	20	43.0	20	17.4	40	60.4
	S4	**25,340**	0	5.7	30	27.0	30	32.7
	S5	**69,542**	0	11.3	30	30.2	30	41.5
	S6	**531,251**	0	3.5	20	20.3	20	23.8
	W3	**6,618**	0	4.5	30	27.4	30	31.9
	W5	**673**	10	27.3	40	25.8	50	53.1

a Channel widths for S1 streams are >20m, <100m.

b Streams that flow through, rather than adjacent to a block have had their lengths doubled to account for the application of RMA's to both sides. Therefore true stream length is less than reported in this table.

c RRZ and RMZ widths are applied to a single side of a stream. If stream flows through the block the length has been doubled (see footnote b) but the widths are not doubled.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.8 SHRUBS/EARLY FOREST

Criterion 1:	**Element(s): 1.2**
Biological Diversity	Species Diversity
CSA Core Indicator(s): 1.2.1: Degree of habitat protection for selected focal species, including species at risk	
Indicator Statement	**Target Statement**
The minimum proportion of shrub habitat (%) by Natural Disturbance Unit	Each Natural Disturbance Unit will meet or exceed the baseline target (%) proportion of shrub habitat (Table 20)
Value(s): Native Species Richness	
SFM Objective: We will sustain sufficient and appropriately distributed habitat elements to maintain native species richness.	

STATUS AND COMMENTS:

The following table indicates the initial condition of shrub habitat, in 2005, within the DFA. The status of shrub habitat at the end of 2010 is outlined in the table below as well. Within all NDU's there was an increase in the amount of shrub habitat over time. Because shrubs are intimately associated with early seral forest, harvested area is a significant contributor to the amount of shrub habitat. Back in 2005 the forecast for the amount of shrub habitat was higher than the actual which can be largely attributed to the curtailment of the operations which saw a suspension of harvesting for a period of nearly 2 years.

The next time this indicator will be reported on will be in the 2015-2016 annual report. It is anticipated that the next reporting period will contain the highest level of shrub habitat as the analysis considers forest stands less than 30 years of age as contributing to shrub area. Harvesting on the DFA began in 1986 which will represent 30 years of operations on the DFA in 2016. As managed stands become older than 30 years they will no longer contribute to shrub habitat which is why after 2016 it is anticipated that shrub habitat will remain in a relatively stable state and will most largely be impacted by natural disturbances such as fire. Late summer of 2014 saw the start of the Mount McAllister wildfire which continued to burn and be very active right until snowfall in late October and early November. This fire burned approximately 26,280.8 ha in total however some of this areas was beyond the boundaries of the TFL. This natural disturbance will contribute to the early seral forest bringing the proportion of shrub habitat well above the baseline target.

Table 9: Shrub Habitat

NDU	NDU Subunit	Total NDU Area	Baseline Shrub Habitat		2010 Shrub		Baseline Target %
			Ha	%	Ha	%	
Boreal Plains		120,891	15,762	13%	17,803	15%	14%
Boreal Foothills	Valley	178,225	25,245	14%	27,687	16%	12%
	Mountain	205,406	20,936	10%	22,944	11%	11%
Omineca	Valley	6,504	727	11%	812	12%	7%
	Mountain	15,031	1,277	8%	1,719	11%	10%
Wet Mountain		117,618	12,634	11%	14,958	13%	7%
Grand Total		643,676	76,581	12%	85,924	13%	

REVISIONS:

No revisions are suggested for this indicator or objective.

2.9 WILDLIFE HABITAT AREAS, UNGULATE WINTER RANGES AND DUNLEVY CREEK MANAGEMENT PLAN

Criterion 1:	**Element(s): 1.2, 1.4**
Biological Diversity	Species Diversity; Protected Areas and Sites of Special Biological and Cultural Significance
CSA Core Indicator(s) 1.2.1: Degree of habitat protection for selected focal species, including species at risk **1.2.2:** Degree of suitable habitat in the long term for selected focal species, including species at risk **1.4.1:** Proportion of identified sites with implemented management strategies	
Indicator Statement	**Target Statement**
Proportion of activities consistent with objectives of Wildlife Habitat Areas (WHA), Ungulate Winter Ranges (UWR), and Dunlevy Creek Management Plan	All forest management activities will be consistent with objectives of Wildlife Habitat Areas (WHA), Ungulate Winter Ranges (UWR), and Dunlevy Creek Management Plan
Value(s): Native Species Richness, Protected Areas and Sites of Special Geological, Biological, or Cultural Significance	
SFM Objective: We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness. We will implement management strategies appropriate to the long term maintenance of protected areas and sites of special geological, biological, or cultural significance.	

STATUS AND COMMENTS:

In the 2014 – 2015 reporting year there were no activities within UWR's, WHA's, or the Dunlevy Creek Management Plan area.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.10 HABITAT SUPPLY FOR SPECIES OF PUBLIC CONCERN

Criterion 1:	**Element(s): 1.2**
Biological Diversity	Species Diversity
CSA Core Indicator(s): 1.2.1: Degree of habitat protection for selected focal species, including species at risk **1.2.2:** Degree of suitable habitat in the long term for selected focal species, including species at risk	
Indicator Statement	**Target Statement**
Habitat supply for species of public interest (grizzly bear, wolverine, marten, fisher, elk, moose, caribou)	When habitat supply decreases by 20% over time beyond the natural range of variation baseline for species of public interest, stand level management strategies will be developed within one year
Value(s): Native Species Richness	
SFM Objective: We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness.	

STATUS AND COMMENTS:

This indicator was first reported on in 2005 and was originally tied to the AAC/TSR process which occurred every 5 years. With government regulation changes AAC Determinations can occur between every 10 and 15 years. To remain consistent with the reporting frequency this indicator will no longer be tied to the AAC/TSR process and will be reported on every five years. The next time this indicator will be reported on will be in the 2015- 2016 annual report.

Moose was modeled for the summer feeding period. TFL 48 represents excellent moose habitat with over 340,000 ha classified in very high, high and moderate categories of habitat supply.

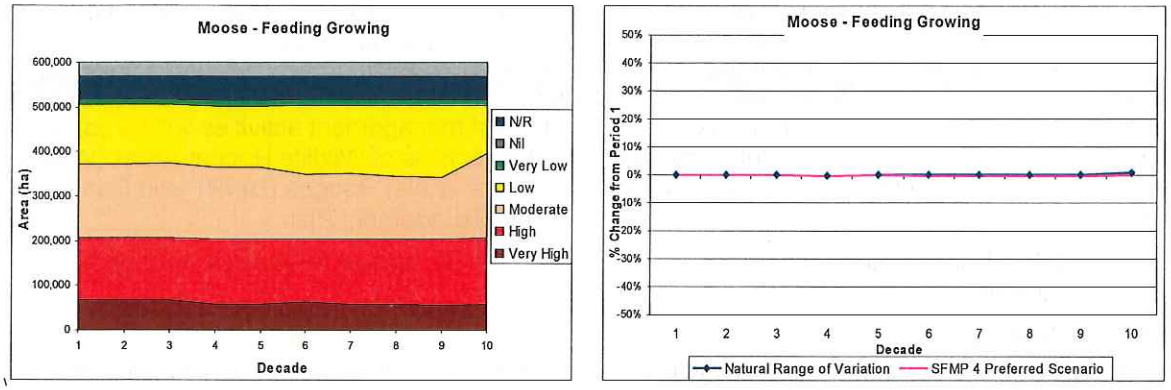


Figure 2: Moose Habitat Supply

Elk habitat was modeled as summer feeding habitat. TFL 48 represents excellent elk habitat with over 230,000 ha classified in very high, high and moderate categories of habitat supply.

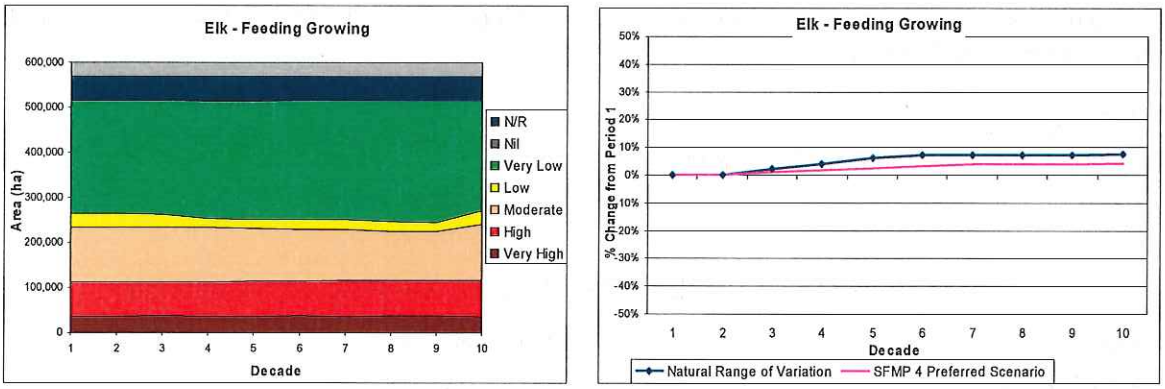


Figure 3: Elk Habitat Supply

Caribou was modeled for both late and early winter habitat types. In contrast to moose and elk there is comparatively little very high, high and moderate habitat for caribou, approximately 15,000 ha of early winter. (This is likely underrepresented with the current model.) Late winter habitat trends to a significantly less amount in the preferred scenario versus the natural range of variation baseline.

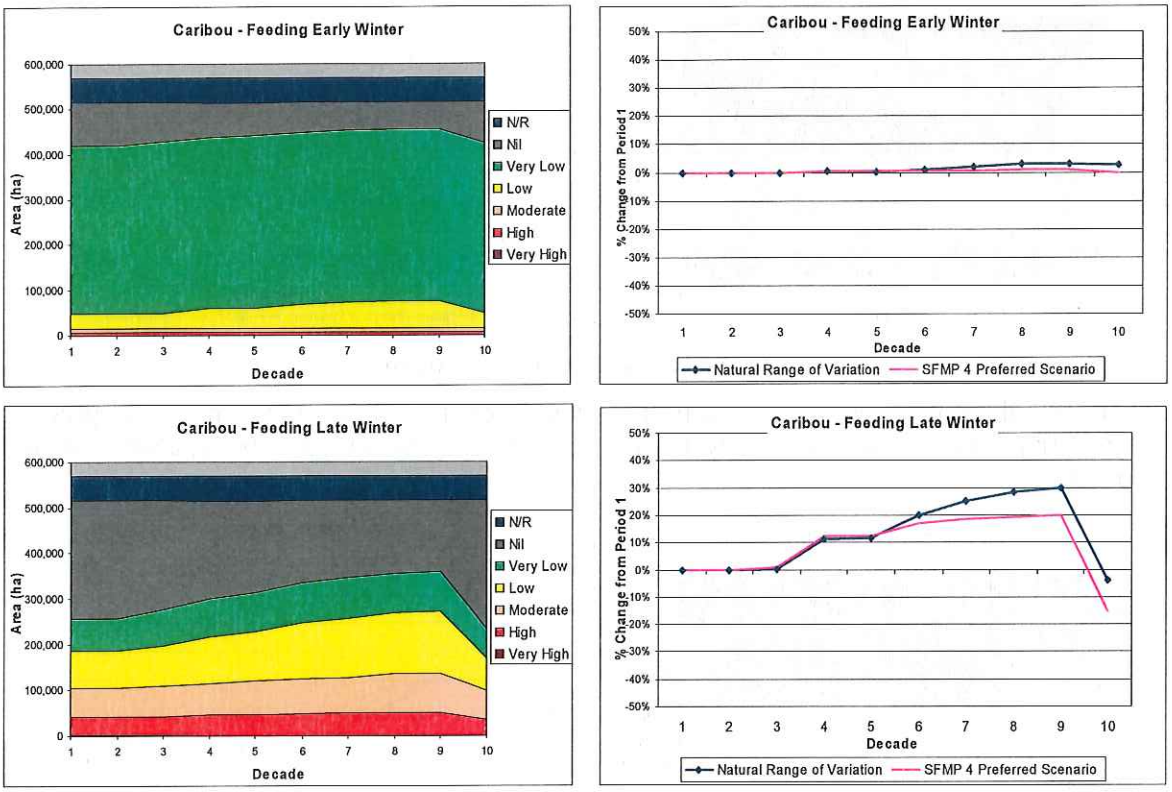


Figure 4: Caribou Habitat Supply

Marten habitat was modeled as general winter habitat. TFL 48 has a large amount of habitat (over 250,000 ha) modeled as very high, high and moderate. While habitat steadily declines over the 100 year simulation the preferred scenario has less of a decline than the natural range of variation simulation.

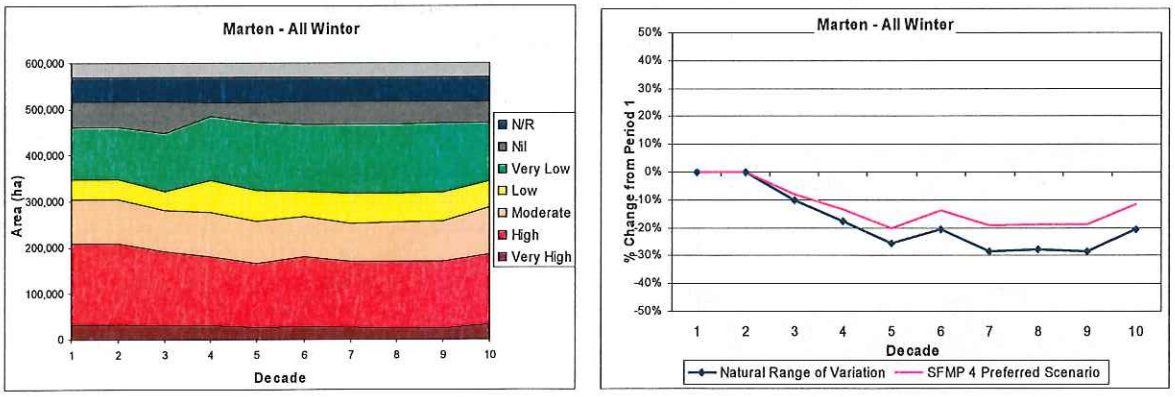


Figure 5: Marten Habitat Supply

Fisher habitat was modeled as general winter habitat. TFL 48 represents a large area of very high, high and moderate habitat with over 196,000 ha classified in these categories.

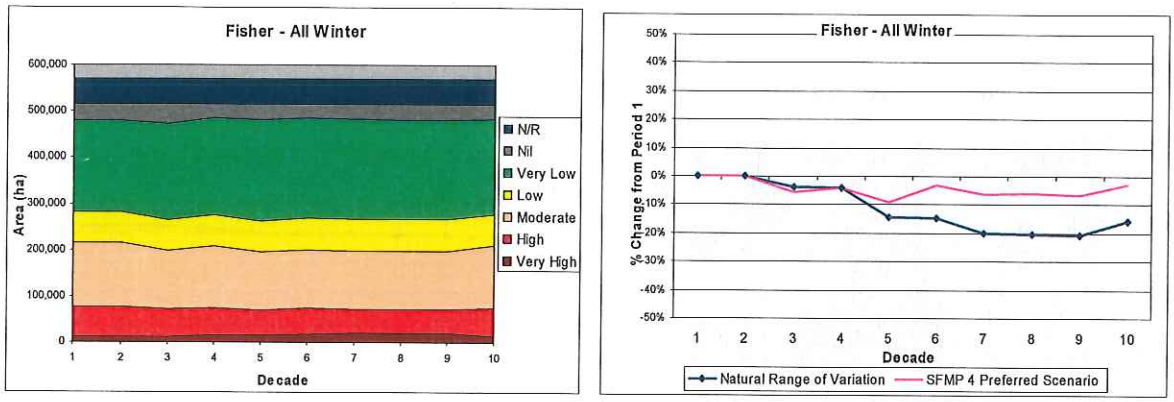


Figure 6: Fisher Habitat Supply

Grizzly bear habitat was modeled as spring feeding habitat. TFL 48 has a moderate amount of very high, high and moderate grizzly bear habitat with over 111,000 ha classified in these categories.

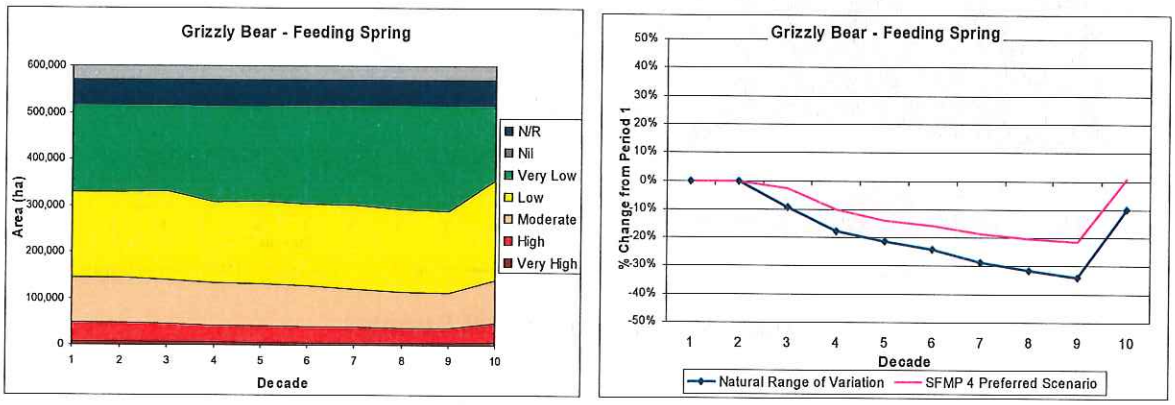


Figure 7: Grizzly Bear Habitat Supply

Wolverine habitat was modeled as winter feeding habitat. TFL 48 represents an excellent area for wolverine with over 440,000 ha modeled as high and moderate habitat quality. Again while the trend is for a decline in the overall amount of high quality habitat the preferred scenario shows less of a decline than the natural range of variation.

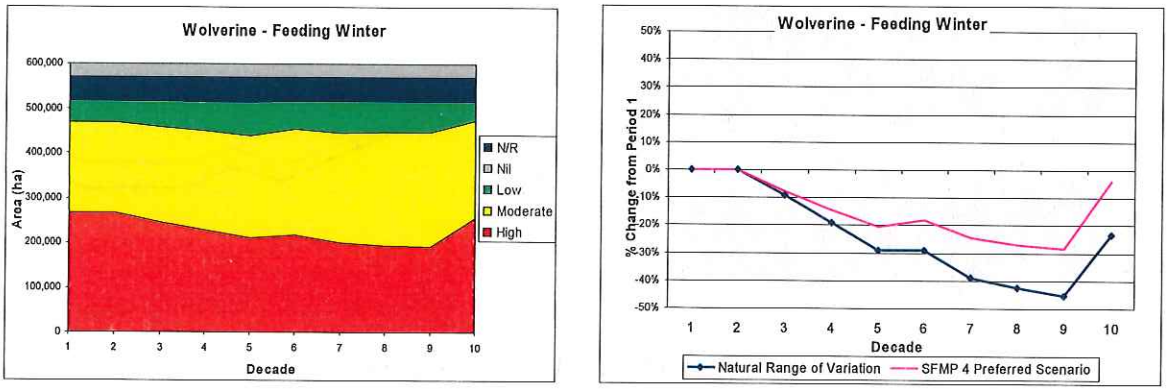


Figure 8: Wolverine Habitat Supply

REVISIONS:

Indicator will no longer be linked to the AAC/TSR process as AAC timelines have extended beyond meaningful data analysis time frames for this Indicator. This indicator will remain on a 5 year reporting schedule and will be reported on in the 2015-2016 annual report.

2.11 SPECIES OF MANAGEMENT CONCERN

Criterion 1:	Element(s): 1.2
Biological Diversity	Species Diversity
CSA Core Indicator(s): 1.2.1: Degree of habitat protection for selected focal species, including species at risk **1.2.2:** Degree of suitable habitat in the long term for selected focal species, including species at risk	
Indicator Statement	Target Statement
Percent consistency with management strategies for species of management concern	On an annual basis, 100% of the management strategies for species of management concern are consistently being implemented as scheduled
Value(s): Native Species Richness	
SFM Objective: We will sustain sufficient and appropriately distributed suitable habitat elements to maintain native species richness.	

STATUS AND COMMENTS:

The implementation strategy for this indicator was to implement stand level management guidelines on all areas where layout was initiated after October 31, 2005. Between January 1, 2014 and March 31, 3015, there were 30 new blocks laid out. None of these blocks were in areas of, or contained environmental aspects of significance to the wildlife identified in the document *Guidelines for Species Using Localized Habitats for TFL48.*

REVISIONS:

This indicator was queried on both the field package and layout activity so that all blocks that were laid out and permitted were captured in the data set. This way the data can be properly analyzed through the site plan to see if any species of concern were noted on the block at the time of layout.

Below is a table that will now be part of the annual reporting for this indicator. The table contains a list of species that are provincially listed as being at some sort of risk of declining and whose habitat range includes TFL 48. This list guides our species accounting system and will be monitored and updated annually.

Table 10: TFL 48 Species at Risk

English Name	Scientific Name	COSEWIC[1]	BC CDC List[2]	IWMS[3]
AMPHIBIANS				
Western Toad	*Bufo boreas*	Special Concern (Nov 2012)	Blue	
FISH				
Bull Trout	*Salvelinus confluentus*	Special Concern (Nov 2012)	Blue	Yes (Jun 2006)
Northern Redbelly Dace	*Chrosomus eos*		Blue	
Pearl Dace	*Margariscus nachtriebi*		Blue	
Spottail Shiner	*Notropis hudsonius*		Red	
BIRDS				
American Bittern	*Botaurus lentiginosus*		Blue	
Barn Swallow	*Hirundo rustica*	Threatened (May 2011)	Blue	
Bay-breasted Warbler	*Setophaga castanea*		Red	Yes (Jun 2006)
Black-throated Green Warbler	*Setophaga virens*		Blue	Yes (Jun 2006)
Broad-winged Hawk	*Buteo platypterus*		Blue	
Canada Warbler	*Cardellina canadensis*	Threatened (Mar 2008)	Blue	
Cape May Warbler	*Setophaga tigrina*		Red	Yes (Jun 2006)
Common Nighthawk	*Chordeiles minor*	Threatened (Apr 2007)	Yellow	
Connecticut Warbler	*Oporornis agilis*		Red	Yes (Jun 2006)
Le Conte's Sparrow	*Ammodramus leconteii*		Blue	
Nelson's Sparrow	*Ammodramus nelsoni*	Not at Risk(May 1998)	Red	Yes (Jun 2006)
Olive-sided Flycatcher	*Contopus cooperi*	Threatened (Nov 2007)	Blue	
Rusty Blackbird	*Euphagus carolinus*	Special Concern (Apr 2006)	Blue	
Sandhill Crane	*Grus canadensis*	Not at Risk (May 1979)	Yellow	Yes (Jun 2006)
Short-eared Owl	*Asio flammeus*	Special Concern (Mar 2008)	Blue	Yes (May 2004)
Surf Scoter	*Melanitta perspicillata*		Blue	
Swainson's Hawk	*Buteo swainsoni*		Red	
Upland Sandpiper	*Bartramia longicauda*		Red	
Yellow Rail	*Coturnicops noveboracensis*	Special Concern (Nov 2009)	Red	
MAMMALS				
Wolverine	*Gulo gulo*	Special Concern (May 2003)	No Status	
Wolverine, *luscus* subspecies	*Gulo gulo luscus*	Special Concern (May 2003)	Blue	Yes (May 2004)
Fisher	*Martes pennanti*		Blue	Yes (Jun 2006)
Little Brown Myotis (Bat)	*Myotis lucifugus*	Endangered (Nov 2012)	Yellow	
Northern Myotis (Bat)	*Myotis septentrionalis*	Endangered (Nov 2012)	Blue	
Caribou (northern mountain population)	*Rangifer tarandus* pop. 15	Threatened (May 2002)	Blue	Yes (May 2004)
Grizzly Bear	*Ursus arctos*	Special Concern (May 2002)	Blue	Yes (May 2004)

1 Committee on the Status of Endangered Wildlife in Canada: www.speciesatrisk.gc.ca
2 BC Conservation Data Center's Species and Ecosystem Explorer
3 IWMS - Identified Wildlife Management Strategy

2.12 CONIFEROUS SEEDS

Criterion 1:	Element(s): 1.2, 1.3
Biological Diversity	Species Diversity, Genetic Diversity
CSA Core Indicator(s): 1.2.3: Proportion of regeneration comprised of native species **1.3:** Genetic Diversity – No core indicator	
Indicator Statement	Target Statement
The proportion of seeds for coniferous species collected and seedlings planted in accordance with the regulation	All coniferous seeds will be collected and seedlings will be planted in accordance with the regulations
Value(s): Native Species Richness, Genetic Diversity	
SFM Objectives: We will conserve genetic diversity of tree stock.	

STATUS AND COMMENTS:

In 2014 there were a total of 3,497,813 trees planted on TFL 48 by Canfor and BCTS. Canfor planted 3,087,355 and BCTS planted 410,458 trees. All seeds have been registered with and tracked by the Tree Improvement Branch of the Ministry of Forests Lands and Natural Resource Operations. Licensees operating on TFL 48 were 97.2% in compliance with the Chief Forester's Standards for Seed Use effective April 1, 2005. The Standard requires that practices be in 95% or greater conformance which has been achieved. All of the non-compliances were trees that were known, or thought to have been, planted outside of the designated Seed Planning Zone.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.13 DECIDUOUS SEEDS AND VEGETATIVE MATERIAL

Criterion 1:	Element(s): 1.2, 1.3
Biological Diversity	Species Diversity, Genetic Diversity
CSA Core Indicator(s): 1.2.3: Proportion of regeneration comprised of native species **1.3:** Genetic Diversity – No core indicator	
Indicator Statement	Target Statement
The proportion of seed or vegetative material for deciduous species collected and planted in accordance with the regulation	All deciduous species will be collected and planted in accordance with the regulations
Value(s): Native Species Richness, Genetic Diversity	
SFM Objectives: We will conserve genetic diversity of tree stock.	

STATUS AND COMMENTS:

There were no deciduous seedlings or vegetative propagates planted on TFL 48 in 2014. Seed lots grown or planted within TFL 48 will be registered in accordance with the Forest Planning and Practices Regulation and the Chief Forester's Standards for Seed Use effective April 1, 2005. All seeds used in TFL 48 by Canfor and BCTS will be registered with and tracked by Tree Improvement Branch of the Ministry of Forests and Range.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.14 CLASS A PARKS, ECOLOGICAL RESERVES AND LRMP DESIGNATED PROTECTED AREAS

Criterion 1:	Element(s): 1.4
Biological Diversity	Protected Areas and Sites of Special Biological and Cultural Significance
CSA Core Indicator(s): 1.4.1 Proportion of identified sites with implemented management strategies	
Indicator Statement	Target Statement
Hectares of forestry related harvesting or road construction within Class A parks, protected areas, ecological reserves and LRMP designated protected areas	Zero hectares of forestry related harvesting or road construction within Class A parks, protected areas, ecological reserves or LRMP designated protected areas
Value(s): Protected Areas and Sites of Special Geological, Biological, or Cultural Significance	
SFM Objective: We will implement management strategies appropriate to the long term maintenance of protected areas and sites of special geological, biological, or cultural significance.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 there was no harvesting or road construction for the purposes of carrying out forestry operations within Class A parks, protected areas, ecological reserves or LRMP designated protected areas within TFL 48.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.15 KNOWN VALUES AND USES ADDRESSED IN OPERATIONAL PLANNING

Criterion 1:	Element(s): 1.4, 6.1, 6.2
Biological Diversity	Protected Areas and Sites of Special Biological and Cultural Significance; Aboriginal and Treaty Rights; Respect for Aboriginal Forest Values, Knowledge and Uses
CSA Core Indicator(s): 1.4.2 Protection of identified sacred and culturally important sites **6.1.3:** Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur **6.2.1:** Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values	
Indicator Statement	Target Statement
Percentage of known traditional site-specific aboriginal values and uses identified during SFMP, FDP, FSP, or PMP referrals addressed in operational plans	100% of known traditional site-specific aboriginal values and uses identified during SFMP, FDP, FSP, or PMP referrals will be addressed in operational plans
Value(s): Protected Areas and Sites of Special Geological, Biological, or Cultural Significance; Treaty and Aboriginal Rights; Aboriginal Forest Values and Uses	
SFM Objective: We will implement management strategies appropriate to the long term maintenance of protected areas	

and sites of special geological, biological, or cultural significance.
We will recognize and respect Treaty 8 rights.
We will respect known traditional Aboriginal forest values, and uses.

STATUS AND COMMENTS:

In 2013 the site specific comments provided by First Nations regarding aboriginal values and uses were considered and addressed in operational plans. Two cutting permits were found to have site specific concerns which resulted in discussions between Canfor and the First Nations to address concerns and propose mitigation strategies. Later this year, a mutually acceptable resolution was been reached and so the blocks have been passed on to the Delegated Decision Maker for a decision on the cutting permit application.

In the 2014-2015 reporting year there were three blocks identified in the information sharing process that First Nations had shared traditional knowledge of significant traditional use occurring in and around those three blocks. Through continued discussions between Canfor and First Nations it was agreed that those blocks would be removed from the harvest plan. A number of other blocks that were information shared throughout the 2014-2015 years were identified by First Nations as having traditional use values and so numerous meetings and email discussions allowed for mitigation strategies to be developed to protect and/or mitigate potential impacts from harvesting operations. For blocks that are information shared and allocated to the BCTS program, comments provided by First Nations are passed on to BCTS.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.16 CONFORMANCE TO ELEMENTS PERTINENT TO TREATY RIGHTS

Criterion 1:	**Element(s): 1.4, 6.1**
Biological Diversity	Protected Areas and Sites of Special Biological and Cultural Significance; Aboriginal and Treaty Rights
CSA Core Indicator(s): 1.4.2 Protection of identified sacred and culturally important sites **6.1.3:** Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur	
Indicator Statement	**Target Statement**
% conformance to SFM elements pertinent to treaty rights (i.e., hunting, fishing and trapping) defined in Treaty 8	100% conformance to the SFM indicators and targets of the SFM Elements pertinent to sustaining hunting, fishing and trapping, as follows: • Element 1.1 Ecosystem Diversity (Indicators 3.1, 3.2, 3.3, and 3.4), and Element 1.2 Species Diversity (Habitat Elements) Indicators (3.5, 3.6, 3.7, 3.8, and 3.10), • Element 3.1 Soil Quality and Quantity (Indicator 3.27), and • Element 3.2 Water Quality and Quantity Indicators (3.28, 3.29, 3.30, 3.31, and 3.32)
Value(s): Protected Areas and Sites of Special Geological, Biological, or Cultural Significance; Treaty and Aboriginal Rights	

SFM Objective:
We will implement management strategies appropriate to the long term maintenance of protected areas and sites of special geological, biological, or cultural significance. We will recognize and respect Treaty 8 rights.

STATUS AND COMMENTS:

For the 2014-2015 reporting period all indicators in Elements 1.1, 1.2, 3.1 and 3.2 were met. Canfor and BCTS have maintained their obligation to consult with First Nations on every herbicide program each year. Canfor has also put measures in place since the 2011 spray program to mitigate the potential for over sprays into water bodies in the future. In 2014 there were no incidences of over spray into water bodies by either Canfor or BCTS.

REVISIONS:

No revisions are suggested for this indicator or objective.

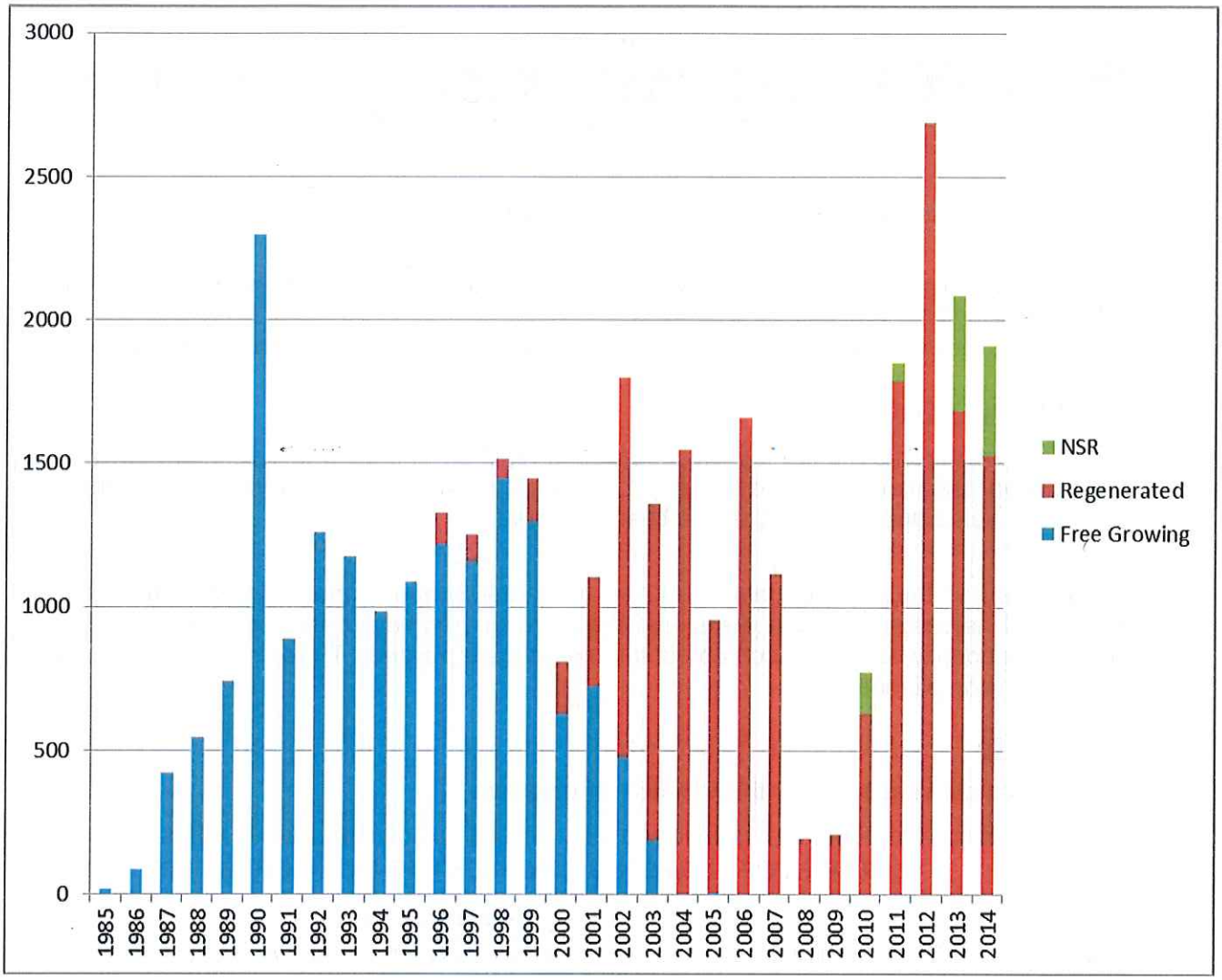
2.17 FREE GROWING STANDS

Criterion 2:	**Element(s): 2.1**
Ecosystem Condition and Productivity	Forest Ecosystem Resilience
CSA Core Indicator(s): 2.1.1 Reforestation success	
Indicator Statement	Target Statement
Proportion of area harvested that has free growing stands re-established	100% of the area harvested will meet the free growing requirements identified in the silviculture prescriptions/site plans
Value(s): Ecosystem Resilience	
SFM Objectives: We will sustain a natural range of variability in ecosystem function, composition and structure which allows ecosystems to recover from disturbance and stress.	

STATUS AND COMMENTS:

All areas harvested have met free growing requirements as identified in the silviculture prescriptions/site plans. No areas have gone past the free growing timelines without achieving free growing requirements. See Figure 9 for status of areas harvested on TFL 48 where there is a free growing requirement. All areas on the TFL that show as NSR will be monitored to ensure they do not go beyond their free growing dates. If it looks like they might, then an action plan is developed and the free growing dates are amended or treatments implemented to ensure that free growing requirements are achieved. Currently there is 33 ha on the TFL that are planned to be fill-planted, some of which was treated with herbicide this year, to allow those areas to reach free-grow status by the deadline.

Figure 9: Regeneration/Free Growing Status by Year of Harvest Start



REVISIONS:

No revisions are suggested for this indicator or objective.

2.18 REGENERATION DECLARATION

Criterion 2:	Element(s): 2.1, 4.1
Ecosystem Condition and Productivity	Forest Ecosystem Resilience; Carbon Uptake and Storage
CSA Core Indicator(s): 2.1.1 Reforestation success	
Indicator Statement	Target Statement
Area weighted average time delay from harvesting starting and initial restocking of harvest area by DFA	Average delay will be no more than 2 years
Value(s): Ecosystem Resilience, Carbon Uptake and Storage	
SFM Objectives: We will sustain a natural range of variability in ecosystem function, composition and structure which allows ecosystems to recover from disturbance and stress. We will maintain the processes for carbon uptake and storage within the natural range of variation.	

STATUS AND COMMENTS:

At the end of March 31, 2015 the average age of NSR on TFL 48 was 1.13 years for all areas where harvesting started prior to January 1, 2014. The average regeneration delay is therefore less than 2 years and so the target has been achieved.

Two blocks had the planting delayed (T2043 and T2063) due to the fact that there was cable ground not harvested in those areas and therefore that portion of the block was not planted. The conventionally harvested portions of the blocks were planted. These blocks are considered to be within compliance.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.19 AREA OF FORESTED LAND LOST TO NON-FOREST INDUSTRY

Criterion 2:	Element(s): 2.2, 4.2
Ecosystem Condition and Productivity	Forest Ecosystem Productivity, Forest Land Conversion
CSA Core Indicator(s): 2.2.1 Additions and deletions to the forest area	
Indicator Statement	Target Statement
Area of forested land lost due to non-forest industry	We will track, and monitor and report every 3 years, losses to other non-forest industry uses and incorporate these losses when AAC calculations are determined.
Value(s): Ecosystem Productivity, Forested Land Base	
SFM Objective: We will sustain forests within the DFA.	

STATUS AND COMMENTS:

This indicator was last reported on in 2010. After the accepted revision to the 2011 matrix, this indicator is to be updated every three years requiring this information to be updated and reported for the 2014 – 2015 reporting year.

During the term of MP 3 Canfor developed a spatial tracking system to identify what and where non-forest related activities were occurring within TFL 48. All activities proposed within TFL 48

are typically referred to Canfor. With substantial changes to industry users, company ownership, and key industry contacts it has become increasingly difficult to analyze other resource development based on referrals made to Canfor. This is also due in part, to the fact that referrals are often sent requesting comments on potential impacts, but often development does not occur therefore the area that we think has been developed may not actually be disturbed.

As such, the analysis used to determine the amount of forest land converted has utilized various government data bases which track other resource tenures. The following table shows reductions to the land base due to other uses. It is useful to note that industry, in efforts to minimize the amount of forest land converted to non-forest, attempt to locate sequential developments overtop existing developments. Preliminary analysis of this indicator shows that this may have been previously over estimated.

The next time this indicator will be updated will be in 2017 and reported in the 2017 – 2018 annual report.

Table 11: Reductions to Land Base Due to Other Uses (Excluding Roads[2])

Feature	Total Area (ha)
Well sites[3]	464
Mines [4][5]	2,166
Pipelines	466
Cutlines	1,527
Trails	492
Transmission Lines	980
Grand Total	6,095

REVISIONS:

No revisions are suggested for this indicator or objective.

2.20 PERMANENT ACCESS CORRIDORS

Criterion 2:	**Element(s): 2.2, 4.2**
Ecosystem Condition and Productivity	Forest Ecosystem Productivity; Forest Land Conversion
CSA Core Indicator(s): 2.2.1 Additions and deletions to the forest area	
Indicator Statement	**Target Statement**
Percent of area of the DFA occupied by permanent access corridors associated with forest management activities	We will limit impacts on the land base due to the presence of permanent access corridors to less than 2.4% of the gross land base of the DFA
Value(s): Ecosystem Productivity, Forested Land Base	
SFM Objective:	

[2] Roads are captured in Indicator 20 and are not easily separated as to which are used only by other industries or which are used only by the forest industry.

[3] Includes camps, decking areas, borrow pits and sumps

[4] Includes mines where clearing had started prior to December 2004 (Quintette, Pine Valley Coal and Dillon Mine). Other proposed mines are included as a sensitivity analysis.

[5] Includes roads within mine-cleared areas.

We will sustain forests within the DFA.

STATUS AND COMMENTS:

The following table shows the status to the end of 2010. The data analysis for this indicator occurs when the Timber Supply Analysis/Review is conducted in support of determining the next AAC Determination for the DFA. Government regulation changes have extended the period between AAC determinations which has lengthened the reporting period for this particular indicator.

Table 12: Permanent Access Corridors in TFL 48 (Existing)

Road Type (RoW width in metres)	Total Area (ha)	% of Gross TFL Area (653,576 ha)
Undistinguished Road type but delineated in VRI	1,266	0.20%
1 - ML (25m)	2,292	0.36%
2 - Operational (20m)	2,176	0.34%
3 - Block Perm (10m)	2,634	0.41%
4 - Oil & Gas/Utility roads (10m)	889	0.14%
Grand Total	7,973	1.24%

Source VRI 2004

REVISIONS:

(Revision Accepted by PAC in 2011) Indicator will no longer be linked to the AAC/TSR process as AAC timelines have extended beyond meaningful data analysis time frames for this Indicator. This indicator will remain on a 5 year reporting schedule and will be updated and reported in the 2015-2016 annual report.

2.21 HARVEST LEVELS/VOLUMES

Criterion 2:	**Element(s): 2.2, 5.1**
Ecosystem Condition and Productivity	Forest Ecosystem Productivity; Timber and Non-Timber Benefits
CSA Core Indicator(s): 2.2.2: Proportion of the calculated long-term sustainable harvest level that is actually harvested **5.1.1:** Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	Target Statement
Harvest levels/volumes	Harvest volumes will not exceed 110% of the 5 year periodic cut control volume for the DFA
Value(s): Ecosystem Productivity, Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will sustain forests within the DFA. We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

As outlined in Table 12 below, Canfor did not overcut on the TFL in the reporting period between January 1, 2014 and March 31, 2015 while BCTS has started to gain some ground in cutting their apportionment on the TFL as well as making up for the significant undercut they have been in for the past two years. Canfor logged only 87% of the allotted annual cut

apportionment in 2014 and 55.1% in 2015 bringing the overall target below 110% for the five year cut control period. BCTS was only slightly above their apportionment at 112.3% for the 2014 year and is at only 2.3 % of their target for the 2015 year. BCTS remains in a deficit for harvest on the TFL for the five year cut control period. Canfor will continue to reduce its cut level below the allotted allowable annual cut in order to meet the target of less than 110% for the 5 year cut control period and BCTS will continue to develop sales to bring their harvest levels back on track for their apportionment on the TFL.

Table 13: Actual Recorded and Allowable Annual Cut Summary

	Canfor Annual Cut Summary				BCTS Summary[2]			Deciduous Harvest Summary
Year	Allowable Annual Cut (m^3)	Adjustment (m^3)	Actual Recorded Cut (m^3)	Cut Control (%)	Direct Allocation (m^3)	Actual Recorded Cut (m^3)	Allocation (%)	
1987-1991	1,742,500		1,787,732.00	102.6%				
1992-1996	1,742,500	-41,572.00	1,659,920.50	95.3%				
1997-2001	2,025,193	82,580.00	1,953,224.20	96.4%				
2002-2006	2,331,850	57,575.04	2,344,509.91	100.5%	276,750.00	197,997.25	71.5%	66,084.52
2007-2011	3,311,101	0.00	1,719,885.00	51.9%	290,546.00	358,267.00	123.3%	252,155.00
2012	683,612	196,848	880,460	128.8%	116,388	70,256	60.3%	76,395
2013	683,612	83,575	767,187	112.3%	116,388	35,292	30.3%	16,152
2014	683,612	0	594,935	87.0%	116,388	131,030	112.6%	0
2015	683,612	0	376,768	55.1	116,388	2,687	2.3%	0
2016	683,612				116,388			
Running Total	3,418,060	280,423	2,619,350	76.6%	581,940	239,265	41.1%	92,547

Source: MoF Annual Cut Control Letters (1987-2006)

1 Note that this value represents the Ministries official billed volume. However based on Canfor's records the volume delivered to Canfor's scale was 431,324 m^3 or 89.7% of the AAC. The difference is due to some problems with the Ministry's billing of stumpage at the end of the cut control annual period. The MoF reported this volume in 2004.

2 BCTS volumes were reported using the MoFR Harvest Billing System reports.

3 This value represents the volume delivered from A77788 in 2005 as reported in the MoFR Harvest Billing System (HBS).

4 This value represents the volume delivered from A77788 in 2006 as reported in the MoFR Harvest Billing System (HBS).

5 This value represents the volume delivered as reported in the MoFR Harvest Billing System (HBS)

REVISIONS:

No revisions are suggested for this indicator or objective

2.22 ALLOWABLE ANNUAL CUT

Criterion 2:	Element(s): 2.2
Ecosystem Condition and Productivity	Forest Ecosystem Productivity
CSA Core Indicator(s): 2.2.2 Proportion of the calculated long-term sustainable harvest level that is actually harvested	
Indicator Statement	Target Statement
Allowable Annual Cut (AAC)	We will ensure that the Allowable Annual Cut will not adversely impact Long Term Harvest Level
Value(s): Ecosystem Productivity	
SFM Objective: We will sustain forests within the DFA.	

STATUS AND COMMENTS:

The current AAC is based on the TSR Analysis Report completed and submitted in August 2006, and the AAC Rationale which was effective May 25th, 2007. See Table 13 for a history of the AAC's for TFL 48. The Deputy Chief Forester chose to increase the AAC slightly beyond what Canfor had requested to enable additional Mountain Pine Beetle salvage. This level does not jeopardize the Long Term Harvest Level. The amount of pine harvested in the reporting period between January 1, 2014 and March 31, 2015 represented 57% of deliveries which is 13% below the goal of 70% pine harvest noted in the AAC determination rationale.

The focus for timber harvest on TFL 48 in the past few years and into the future is on pine leading stands. The actual proportion of pine volume harvested is less than the goal because of the mixed nature of the Pine/Spruce forests across the THLB as well as the condition of the majority of pine leading stands being identified and reccied for harvest. The majority of the pine volume left on the TFL is in more mixed stands and therefore we are tending to harvest more incidental spruce volume as we log the dead pine stands. As predicted with this indicator, this trend is continuing as we move north into the more mountainous areas containing more mixed pine/spruce stands.

Canfor will continue to target the highest volume Pine stands on the TFL in order to address the mountain pine beetle epidemic and manage the midterm timber supply. An expedited Timber Supply Review (TSR) was conducted in 2013/2014 as part of the requirements in requesting an uplift in harvest levels for TFL 48 which shows that a higher level of cut could be supported on the TFL without negatively impacting the midterm timber supply. As of September 30, 2015, no decision had been made on the Allowable Annual Cut and so for the 2014-2015 annual report the AAC remains as shown in Table 13.

Table 14: Annual Allowable Cut and Long-Term Harvest Level

Partition	MP 1	MP 2	SFMP 3	SFMP 4
	AAC	AAC	AAC	AAC
Coniferous	410,000	460,000	525,000	800,000
Deciduous	0	54,000	55,000	100,000
Total	**410,000**	**514,000**	**580,000**	**900,000**

REVISIONS:

No revisions are suggested for this indicator or objective.

2.23 SOIL DEGRADATION

Criterion 3:	Element(s): 3.1
Soil and Water	Soil Quality and Quantity
CSA Core Indicator(s): 3.1.1 Level of soil disturbance	
Indicator Statement	Target Statement
Soil degradation	We will not exceed site degradation guidelines as defined in site plans
Value(s): Soil Productivity	
SFM Objective: We will protect soil resources to sustain productive forests.	

STATUS AND COMMENTS:

In TFL 48 there were a total of 45 blocks with harvesting completed in 2014-2015 reporting year between BCTS and Canfor. All blocks harvested were within the site degradation guidelines defined in site plans.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.24 SOIL DISTURBANCE SURVEYS

Criterion 3:	Element(s): 3.1
Soil and Water	Soil Quality and Quantity
CSA Core Indicator(s): 3.1.1 Level of soil disturbance	
Indicator Statement	Target Statement
Soil disturbance surveys	We will not exceed soil disturbance limits within cutblocks as defined in site plans
Value(s): Soil Productivity	
SFM Objective: We will protect soil resources to sustain productive forests.	

STATUS AND COMMENTS:

There were a total of 45 blocks with harvesting completed between January 1, 2014 and March 31, 2015 between BCTS, and Canfor. All blocks harvested were within the soil disturbance limits defined in site plans.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.25 USE OF ENVIRONMENTALLY FRIENDLY LUBRICANTS

Criterion 3:	Element(s): 3.1
Soil and Water	Soil Quality and Quantity
CSA Core Indicator(s): 3.1.1 Level of soil disturbance	
Indicator Statement	Target Statement
Use of environmentally friendly lubricants	We will research and identify environmentally friendly lubricants bi-annually
Value(s): Soil Productivity	
SFM Objective: We will protect soil resources to sustain productive forests.	

STATUS AND COMMENTS:

This indicator has been looked at and continues to be a topic of discussion amongst the harvesting staff in each reporting period. In the past it has been explained as a non-viable option for our harvesting contractors. Many of the environmentally friendly lubricants are not made to withstand the harsh environmental conditions of northern BC. As well they can void warranties and are less effective than the alternative industrial lubricants. Harvesting operations are generally carried out on low risk areas away from running water where the main environmental impact could take place in a spill scenario. The high expense along with the above mentioned characteristics make environmentally friendly lubricants non-feasible at this time. Canfor will continue to watch the market for new, innovative products that could be an option for our loggers in the future. This indicator will be reported on again in the 2015-2016 annual report.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.26 SITE INDEX

Criterion 3:	Element(s): 3.1
Soil and Water	Soil Quality and Quantity
CSA Core Indicator(s): 3.1.1 Level of soil disturbance	
Indicator Statement	Target Statement
Area weighted average Site Index by ecological site series by leading species	The area weighted average Site Index by leading species by site series at free growing will not be less than the SIBEC predicted site index
Value(s): Soil Productivity	
SFM Objective: We will protect soil resources to sustain productive forests.	

STATUS AND COMMENTS:

The following Table 14 shows the current status for stands declared free growing on TFL 48 and site productivity assessed using the growth intercept methodology.

Currently 2, down from 3 in 2013, BEC/site series units are not meeting the predicted SI target. In the 2013 year one unit, SBSwk2 pine site series 5, has had 189 ha surveyed and was not meeting the target performance. This unit was to be monitored to ensure it would reach its

target SI over the next five years. Between the 2013 and 2014 years, the predicted SI has come up which shows that the target performance is moving in the right direction. This unit will continue to be monitored to ensure it reaches the target SI. This year the SBSwk2 pine site series 1, had an 8.4% decrease in the predicted SI putting it below the negative 10% variance that is considered acceptable for this indicator. This unit will now be monitored as well to determine if a trend exists.

Table 15: Site Index by Leading Species for Free Growing Stands

		Species								
		Subalpine Fir			White Spruce			Lodgepole Pine		
BEC	Site Series	Ha	SI	Predicted SI	Ha	SI	Predicted SI	Ha	SI	Predicted SI
BWBSmw1	1	-	-	N/A	514.8	20.8	17.7	243.4	17.6	18
	2	-	-	N/A	31.1	21.6	9	69.3	18.0	12
	3	-	-	N/A	162.7	22.3	17	67.8	18.4	18
	4	-	-	N/A	180.6	19.3	12	52.7	18.3	15
	5	-	-	N/A	110.6	18.7	18	181.3	18.9	18
	6	-	-	N/A	33.5	19.2	18.1	20.4	19.0	18
	7	-	-	N/A	60.8	18.2	18	1.4	18.0	18
BWBSmw1 Total		-	-	N/A	1,094.1	20.4	16.6	636.3	18.2	17.6
BWBSwk1	1	-	-	N/A	130.0	20.3	12	29.9	16.7	15
	2	-	-	N/A	25.4	21.1	9	24.9	18.6	12
	3	-	-	N/A	25.5	17.6	9	34.9	18.3	12
	4	-	-	N/A	7.2	20.0	12	15.8	13.8	15
	5	-	-	N/A	0.0	0.0	15	8.1	16.1	15
	6	-	-	N/A	0.0	0.0	15	1.8	16.0	15
BWBSwk1 Total		-	-	N/A	188.2	20.0	11.5	117.4	17.1	14.6
BWBSwk2	1	-	-	N/A	0.2	17.4	12	1.5	19.0	15
	2	-	-	N/A	0.0	0.0	9	0.0	0.0	12
	3	-	-	N/A	0.0	0.0	12	1.0	19.0	15
	4	-	-	N/A	0.0	0.0	9	0.0	0.0	12
	5	-	-	N/A	0.0	0.0	15	0.0	0.0	15
BWBSwk2 Total		-	-	N/A	0.2	17.4	11.9	2.5	19.0	15
ESSFmv2	1	1,603.9	15.4	12	682.9	15.9	15	643.5	17.2	15
	2	183.4	12.9	9	175.3	15.4	9	41.5	15.7	12
	3	259.2	16.0	6	83.4	15.2	6	102.6	18.8	9
	4	761.7	15.7	15	168.1	15.5	15	152.3	17.5	18
	5	36.0	16.7	15	5.4	15.9	15	17.1	19.1	15
	6	20.0	15.3	15	10.0	15.0	15	4.5	16.1	15
ESSFmv2 Total		2,864.2	15	12.8	1,125.0	16	14.6	961.5	17	15.1
ESSFmv4	1	0.0	0.0	12	0.0	0.0	15	0.0	0.0	15
	2	0.0	0.0	9	0.0	0.0	9	0.0	0.0	12
	3	0.0	0.0	6	0.0	0.0	6	0.0	0.0	9
	4	0.0	0.0	15	0.0	0.0	15	0.0	0.0	18
ESSFmv4 Total		0.0	0	10.5	0.0	0	15	0.0	0	13.5
ESSFwc3	1	107.2	16.6	15	1.8	22.7	15	-	-	N/A
	2	30.4	14.4	9	0.0	0.0	9	-	-	N/A

	3	140.1	20.4	15	12.6	23.0	15	-	-	N/A
ESSFwc3 Total		277.7	18.3	15	14.4	23.0	13	0.0	-	N/A
ESSFwk2	1	641.0	16.8	15	289.2	17.4	15	91.7	16.0	N/A
	2	437.7	17.7	9	23.7	16.4	9	47.0	15.9	N/A
	3	341.3	16.9	12	49.8	18.6	12	4.5	17.0	15
	4	370.8	18.3	15	120.5	16.3	15	18.9	15.3	N/A
	5	232.8	19.5	15	62.1	19.6	15	16.7	15.5	N/A
	6	41.9	16.3	12	5.9	20.9	12	60.3	17.5	N/A
ESSFwk2 Total		2,065.5	17.6	12.4	551.2	17.5	14.1	239.1	16.3	15
SBSwk2	1	917.3	16.1	15	838.5	20.1	21.8	543.8	18.3	21
	2	51.4	15.2	12	168.4	20.8	15	93.3	18.0	15
	3	280.2	15.0	12	824.5	19.3	18	789.8	18.6	18
	4	335.5	15.6	N/A	587.6	19.4	15	354.6	17.2	18
	5	289.6	16.2	18	654.4	18.8	21	339.9	17.3	21
	6	32.0	18.0	18	197.2	19.8	24	44.7	19.6	21
	7	7.7	19.6	N/A	81.8	18.7	N/A	27.2	17.3	N/A
SBSwk2 Total		1,913.8	15.9	14.6	3,352.5	19.5	19.7	2,193.4	18.1	19.8
Grand Total		7,823.8	16.3	12.8	6,281.1	18.9	16.9	4,150.3	17.8	17.4

REVISIONS:

No revisions are suggested for this indicator or objective.

2.27 COARSE WOODY DEBRIS

Criterion 3:	**Element(s): 3.1**
Soil and Water	Soil Quality and Quantity
CSA Core Indicator(s): 3.1.2 Level of downed woody debris	
Indicator Statement	**Target Statement**
Average Coarse Woody debris size and m^3/ha on blocks harvested on the TFL since Jan 1, 2004	Average retention level over the TFL since Jan 1, 2004 will be at least 92 m^3/ha of which a minimum of 46 m^3/ha will be greater than 17.5cm in diameter
Value(s): Ecosystem Productivity	
SFM Objective: We will protect soil resources to sustain productive forests.	

STATUS AND COMMENTS:

Currently 11 plots have been established on TFL 48. Progress to date for the 11 samples shows an average of 128 m^3/ha of which 79 m^3/ha is greater than 17.5 cm diameter.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.28 STREAM CROSSING QUALITY INDEX

Criterion 3:	Element(s): 3.2
Soil and Water	Water Quality and Quantity
CSA Core Indicator(s): 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	Target Statement
Maximum Stream Crossing Quality Index (SCQI) by watershed	The maximum SCQI score is 0.40 by watershed
Value(s): Water Quality and Quantity	
SFM Objective: We will maintain water quality and quantity.	

STATUS AND COMMENTS:

In the 2014 field season a total of 52 crossings were surveyed in the Hasler, Highhat and the Lower Pine watersheds. Sampling of the above mentioned watersheds is based on the SCQI cumulative effects hazard rating. All of the sampled watersheds achieved an SCQI score well below the maximum target of 0.4. There was 1 crossing identified in the high class which was located in the Hasler watershed and located on a stream in the 4 width classes.

Canfor has addressed all of the actions identified on the roads under our responsibility. The other actions were on roads managed by other licensees. These actions were communicated to the license holders and should have been addressed. All watersheds should now meet the SCQI targets.

Table 16: SCQI and Water Quality Concerns for Watersheds within TFL 48 – Sampling Completed 2001 to 2014

Watershed Name	n	Erosion Indices			Water Quality Concern Ratings				
		Stream Crossing Density Index	Sum of Stream Crossing Quality Scores	Stream Crossing Quality Index	Stream Width Class[1]	% None (#streams/ #streams sampled)	% Low (#streams/ #streams sampled)	% Medium (#streams/ #streams sampled)	% High (#streams/ #streams sampled)
Gaylard (2009)[3]	54	0.34	3.66	0.02	1	0	0	0	0
					2	66.7	33.3	0	0
					3	80	20	0	0
					4	8.3	83.3	8.3	0
					5	0	94.1	5.9	0
Lower Peace Reach (2009)	54	0.38	2.38	0.02	1	0	0	0	0
					2	0	0	0	0
					3	57.1	42.9	0	0
					4	6.1	93.9	0	0
					5	0	100	0	0
Gething (2009)	52	0.28	4.29	0.02	1	0	0	0	0
					2	50	50	0	0
					3	80	10	10	0
					4	0	95.5	4.5	0
					5	0	100	0	0

Upper Wolverine (2013)	69	0.28	16.2	0.09	1	0	0	0	0
					2	25	75	0	0
					3	60	0	0	40
					4	46.7	33.3	13.3	6.7
					5	18.5	44.5	33.3	3.7
Middle Wolverine (2013)	18	0.13	3.96	0.02	1	0	0	0	0
					2	66.7	0	0	33.3
					3	72.7	9.1	0	18.2
					4	50	50	0	0
					5	75	25	0	0
Hasler Creek (2014)	120	0.63	87.72	0.46	1	0	0	0	0
					2	20	80	0	0
					3	30.8	53.9	0	15.4
					4	7	67.5	20.9	4.7
					5	16.9	50.9	20.3	11.9
Brazion Creek (2002)	105	0.32	34.48	0.11	1	0	0	0	0
					2	20	40	0	40
					3	5.6	44.4	22.2	27.8
					4	27.2	47.3	16.4	9.1
					5	22.2	55.6	14.8	7.4
Highhat Creek (2014)	70	0.45	17.87	0.11	1	0	100	0	0
					2	50	50	0	0
					3	9.1	90.9	0	0
					4	40	60	0	0
					5	51.7	48.3	0	0
Lower Carbon (2010)	37	0.28	3.73	0.03	1	0	100	0	0
					2	100	0	0	0
					3	33.3	55.5	11.1	0
					4	42.9	42.9	14.3	0
					5	57.9	31.6	10.5	0
Seven Mile (2010)	17	0.22	2.96	0.04	1	0	0	0	0
					2	100	0	0	0
					3	0	100	0	0
					4	14.3	71.4	0	14.3
					5	60	20	20	0
Eleven Mile (2010)	22	0.1	0.56	0	1	0	100	0	0
					2	75	25	0	0
					3	100	0	0	0
					4	50	50	0	0
					5	60	40	0	0
Upper Carbon (2010)	55	0.12	1.9	0.01	1	75	25	0	0
					2	57.1	42.9	0	0
					3	33.3	66.6	0	0
					4	20	80	0	0
					5	60.9	39.1	0	0
Lower Sukunka (2006)	191	0.36	70.63	0.13	1	0	0	0	0
					2	0	66.7	0	33.3
					3	10	30	15	45
					4	20.2	41.5	10.6	27.7
					5	28.8	37	23.3	10.9
Upper Sukunka (2013)	89	N/A[2]	N/A[2]	N/A[2]	1	100	0	0	0
					2	0	100	0	0
					3	30	20	20	30
					4	18.8	43.7	18.8	18.7

					5	31	34.5	31	3.4
Lower Pine Residual (2014)	78	0.44	1.62	0.01	1	0	0	0	0
					2	0	0	0	0
					3	0	0	0	0
					4	20	40	33.3	6.7
					5	9.5	54	11.1	25.4
Burnt Creek (2006)	205	0.33	72.66	0.12	1	100	0	0	0
					2	25	37.5	25	12.5
					3	37.9	27.6	20.7	13.8
					4	37.3	22.9	19.3	20.4
					5	29.3	26.8	20.7	33.2
Lower Murray (2007)	55	0.32	17.79	0.1	1	100	0	0	0
					2	50	50	0	0
					3	31.3	37.5	25	6.3
					4	10.7	71.4	3.6	14.3
					5	16.7	66.7	16.7	0
Upper Murray (2007)	154	0.86	32.18	0.18	1	100	0	0	0
					2	100	0	0	0
					3	54.5	27.3	13.6	4.5
					4	16.9	61	5.1	16.9
					5	52.4	11.1	25.4	11.1
Lower Wolverine	63	0.27	19.3	0.08	1	100	0	0	0
					2	75	25	0	0
					3	36.4	63.6	0	0
					4	31	40.5	4.8	23.8
					5	40	40	0	20
Upper Pine Residual (2008)	133	0.33	36.75	0.09	1	100	0	0	0
					2	55.6	33.3	11.1	0
					3	14.8	59.3	18.5	7.4
					4	29.5	51.1	10.2	9.1
					5	37.5	25	37.5	0
Johnson (2009)	49	0.23	5.23	0.02	1	0	0	0	0
					2	75	25	0	0
					3	38.5	61.5	0	0
					4	54.2	37.5	4.2	4.2
					5	25	75	0	0

1 = greater than 20m, 2 = 5 to 20m, 3 = 1.5 to 5m, 4 = 0.5 to 1.5m, 5 = less than 0.5m
2 = SCQI scores of 0
3 = Year the watershed was surveyed

REVISIONS:

No revisions are suggested for this indicator or objective.

2.29 ACTION PLANS FOR HIGH WATER QUALITY CONCERN RATING (WQCR)

Criterion 3:	**Element(s): 3.2**
Soil and Water	Water Quality and Quantity
CSA Core Indicator(s): 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	Target Statement

Number of crossings with a High Water Quality Concern (WQCR) with actions plans prepared within one year of discovery	100% of High WQCR crossings will have action plans prepared within one year of discovery
Value(s): Water Quality and Quantity	
SFM Objective: We will maintain water quality and quantity.	

STATUS AND COMMENTS:

In 2013 there were 11 crossings requiring action plans. Of these 11 action plans comments from the survey included up-grading the road to maintain crown if required. As the majority of these roads are still actively used they are being regularly graded and maintained throughout the year. All of the action plans that were under Canfor responsibility were completed. All crossings requiring action plans that were under the responsibility of other licensees were reported to the proper maintenance personnel in 2013.

In 2014 there was one crossing with a high WQCR and one crossing with a low WQCR on a fish bearing creek which will require some minor work on these structures. The appropriate staff have been notified and action plans have been developed.

REVISIONS:

No revisions are suggested for this indicator or objective

2.30 PEAK FLOW INDEX

Criterion 3:	**Element(s): 3.2**
Soil and Water	Water Quality and Quantity
CSA Core Indicator(s): 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	**Target Statement**
The percentage of watersheds within TFL 48 achieving baseline thresholds for Peak Flow Index	A minimum of 95% of the watersheds within TFL 48 will be below the baseline threshold
Value(s): Water Quality and Quantity	
SFM Objective: We will maintain water quality and quantity.	

STATUS AND COMMENTS:

A new projection of Peak Flow Index (PFI) has been completed for 2014-2015. Currently all watersheds are well below the max PFI targets. Blocks that have not yet been developed are typically larger in size at the planning stage than they are post block layout. This is to ensure field crews capture as much pine infested with Mountain Pine Beetle. Block development within the watersheds are closely monitored such that the established target is not exceeded. The information presented in this annual report forecasts disturbances and growth to 2015.

Table 17: Peak Flow Index Post Development Status

2014-2015 Data							
			Current Development		Future Development		
Watershed	H60 ELEV	Watershed ha	ECA (ha)	PFI (%)	ECA (ha)	PFI (%)	Max PFI Target
Adams Creek	1,107	5,462	11.7	0.2	11.4	0.2	43
Aylard Creek	1,036	5,460	26.5	0.5	23.7	0.4	37
Basin "862"	853	4,898	1,074.8	21.9	1,239.6	25.3	43
Beany Creek	958	3,902	17.8	0.5	17.8	0.5	37
Brazion Creek	1,220	32,398	1,977.3	6.1	2,029.4	6.3	37
Burnt Creek	1,185	62,216	2,757.2	4.4	2,685.3	4.3	37
Cameron Creek	783	3,615	198.7	5.5	248.4	6.9	50
Dunlevy Creek	1,047	17,020	640.1	3.8	710.5	4.2	31
Eleven Mile	1,326	21,621	547.8	2.5	543.8	2.5	43
Gaylard	1,029	15,652	2,968.1	19.0	3,832.9	24.5	31
Gething	996	18,521	1,379.8	7.5	1,926.8	10.4	31
Gwillim	1,066	4,520	810.2	17.9	778.1	17.2	43
Hasler Creek	1,077	19,027	4,816.9	25.3	5,761.1	30.3	37
Highat Creek	1,037	15,659	3,292.6	21.0	3,845.9	24.6	43
Johnson	891	21,169	3,522.3	16.6	4,590.0	21.7	37
Lebleu Creek	874	2,000	12.0	0.6	12.6	0.6	50
LeMoray Creek	1,291	11,199	380.9	3.4	370.5	3.3	37
Lower Carbon	1,057	13,178	982.1	7.5	1,938.3	14.7	50
Lower Murray	1,066	17,408	1,703.4	9.8	2,435.6	14.0	37
Lower Peace Reach	955	14,361	2,339.9	16.3	3,335.0	23.2	50
Lower Pine Residual	923	16,239	4,517.6	27.8	4,396.0	27.1	43
Lower Sukunka	904	54,308	7,880.3	14.5	7,951.5	14.6	43
Lower Wolverine	1,161	23,283	2,121.9	9.1	1,977.3	8.5	37
Medicine Woman Creek	975	1,877	48.9	2.6	49.0	2.6	35
Middle Wolverine	1,205	17,674	3,455.7	19.6	3,285.3	18.6	43
North Peace Residual	929	9,469	233.0	2.5	262.6	2.8	50
Ruddy Creek	922	6,450	127.9	2.0	127.8	2.0	31
Seven Mile	1,257	7,885	256.2	3.2	720.4	9.1	43
Trapper Creek	1,179	7,575	2.2	0.0	2.2	0.0	37
Upper Carbon	1,291	46,295	896.4	1.9	891.6	1.9	37
Upper Murray	1,294	17,868	2,271.7	12.7	2,594.8	14.5	37
Upper Pine Residual	1,082	40,159	5,642.6	14.1	6,556.0	16.3	37
Upper Sukunka	1,075	23,459	1,964.2	8.4	1,975.9	8.4	43
Upper Wolverine	1,378	18,042	1,011.0	5.6	974.3	5.4	37

REVISIONS:

No revisions are suggested for this indicator or objective.

2.31 WATERSHED REVIEWS

Criterion 3:	Element(s): 3.2
Soil and Water	Water Quality and Quantity
CSA Core Indicator(s): 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	Target Statement
The percentage of watersheds reviews completed where the baseline threshold is exceeded	100% of watersheds that exceed the baseline threshold will have a watershed review completed when new harvesting is planned
Value(s): Water Quality and Quantity	
SFM Objective: We will maintain water quality and quantity.	

STATUS AND COMMENTS:

In 2014-2015 there were no watershed reviews required as there were no watersheds where the PFI was exceeded and harvesting was proposed. Going forward if harvesting is proposed in the watersheds that are approaching the PFI target, watersheds reviews will be required. Each year this will be reassessed based upon growth and new areas proposed to be harvested. If it is forecasted that the PFI may be exceeded, block development (layout) will be monitored to ensure that the ECA (equivalent clear cut area) does not elevate the PFI (peak flow index) to above the target as shown in Indicator 30.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.32 SPILLS ENTERING WATERBODIES

Criterion 3:	Element(s): 3.2
Soil and Water	Water Quality and Quantity
CSA Core Indicator(s): 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	
Indicator Statement	Target Statement
Number of reportable spills or misapplications entering water bodies	Zero reportable spills or misapplications entering water bodies
Value(s): Water Quality and Quantity	
SFM Objective: We will maintain water quality and quantity	

STATUS AND COMMENTS:

There were no spills or misapplications of petroleum products into a riparian feature between January 1, 2014 and March 31, 2015 on the DFA. When the efficacy flights were conducted for the 2014 aerial herbicide program there was only one noted incidence of overspray occurring though the overspray did not go into a riparian feature. The overspray incident went approximately 20m into the adjacent cut block and was likely caused by wind gust. Actions that have been taken to ensure this does not occur in the future include: reviewing over treatment

area findings with the pilots and implementers at the pre work to reinforce weather shutdown parameters while stressing that safety and FMS come before production.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.33 CARBON SEQUESTRATION

Criterion 4:	**Element(s): 4.1**
Role in Global Ecological Cycles	Carbon Uptake and Storage
CSA Core Indicator(s): 4.1.1 Net carbon uptake	
Indicator Statement	**Target Statement**
DFA Average Carbon (C) sequestration rate (Mg C/year)	Maintain DFA average carbon sequestration rates that are no more than 15% less than those achieved using the minimum natural range of variation
Value(s): Carbon Uptake and Storage	
SFM Objective: We will maintain the processes for carbon uptake and storage within the natural range of variation.	

STATUS AND COMMENTS:

There has been no change in the status of this indicator since reported in SFMP 4. The data analysis for this indicator occurs when the Timber Supply Analysis/Review is conducted in support of determining the next AAC Determination for the DFA. Government regulation changes have extended the period between AAC determinations which has lengthened the reporting period for this particular indicator. The next anticipated determination is expected in either late 2014 or early 2015 and will be reported on in the 2015-2016 annual report.

Following are two graphs, which provides an example of the average C sequestration rate for both an individual stand (Forecast AU 3 – Natural and Forecast AU 34 – Managed) and shows the average C sequestration rate over the whole DFA over time.

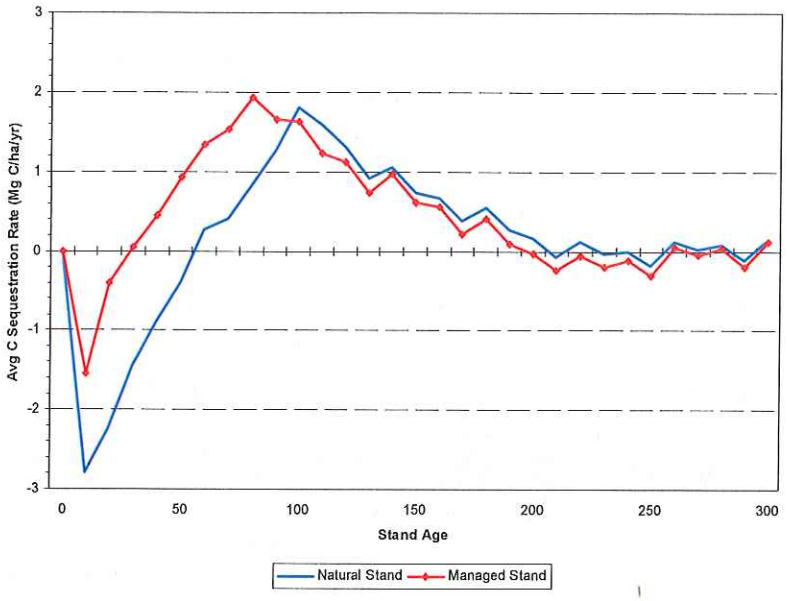


Figure 10: An Example of Average C Sequestration Rates for a Natural Spruce Leading BWBS Mesic Site Stand (Forecast AU 5) and an Associated Managed Stand (Forecast AU m^3)

At the stand level there is a greater release of C to the atmosphere following the decomposition of the larger pool of dead organic matter (snags and CWD) in the natural stand which results in a lower sequestration rate during the first several decades of stand development (Figure 10). In the example provided, the average sequestration rate takes longer to return to positive values in the natural stand versus the managed stand. This is partly related to the fact that the harvested wood removed from the site during harvesting does not contribute to ecosystem C release to the atmosphere. Rather, it is assumed to be stored in wood products.

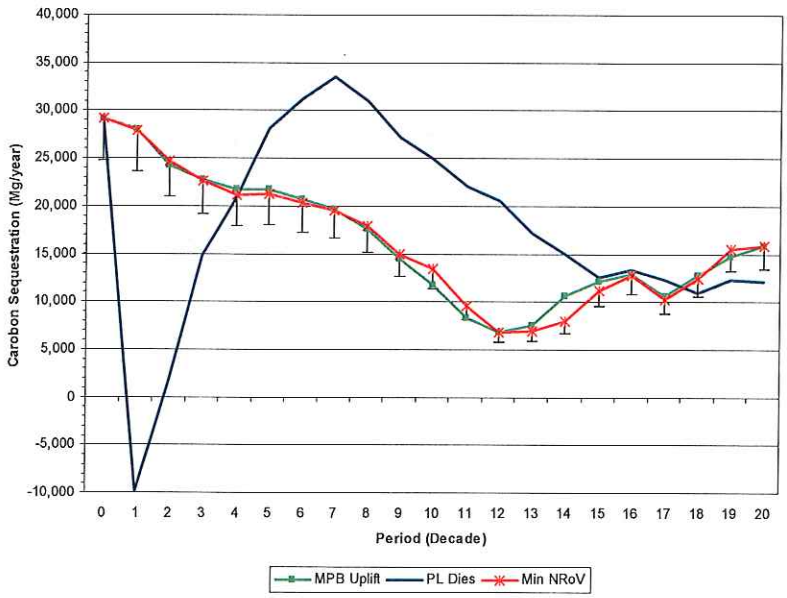


Figure 11: Carbon Sequestration (Mg C/year) within TFL 48 Over Time

At the DFA level the average sequestration rate declines from the present level of about 29,000 Mg C/yr over the next 120 years and stabilizes between 10,000 and 15,000 Mg C/yr in the long

term. The decline from the current situation is due to the large amount of area (approximately 62%) that is between 40 and 140 years old and only 29% greater than 140 years old versus in 100 years the projection is that there will be only 31% of the land base between 40 and 140 years old and 58% greater than 140 years old. Over time the age class distribution is more evenly distributed with more area in younger stands and older stands with lower sequestration rates therefore the DFA level sequestration rate declines. For comparison purposes an estimate of the rate of C sequestration is provided for both the proposed AAC the sequestration rates using the minimum natural range of variation and the scenario where all pine is assumed to be killed in a mountain pine beetle outbreak.

There is no significant difference between the proposed harvest level and the minimum natural range of variation except for periods 10 and 11 in the simulation. After this point in time the sequestration rate is above or equivalent for the proposed harvest level.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.34 ECOSYSTEM CARBON STORAGE (MG) IN THE DFA

Criterion 4:	**Element(s): 4.1**
Role in Global Ecological Cycles	Carbon Uptake and Storage
CSA Core Indicator(s): 4.1.1 Net carbon uptake	
Indicator Statement	Target Statement
Ecosystem Carbon (C) Storage (Mg) in the DFA	Minimum of 95% of minimum natural range of variation disturbance levels of Ecosystem Carbon Storage
Value(s): Carbon Uptake and Storage	
SFM Objective: We will maintain the processes for carbon uptake and storage within the natural range of variation.	

STATUS AND COMMENTS:

There has been no change in the status of this indicator since reported in SFMP 4. The data analysis for this indicator occurs when the Timber Supply Analysis/Review is conducted in support of determining the next AAC Determination for the DFA. Government regulation changes have extended the period between AAC determinations which has lengthened the reporting period for this particular indicator. The next AAC determination is expected either late in 2014 or early 2015 and will be reported in the 2015-2016 annual report.

There is an estimated 122 million Mg of C currently stored in the TFL 48 ecosystem declining in the long term to approximately 76 million Mg of C (Figure 13). Both the C storage levels based on the proposed AAC and the minimum and maximum range of variation decline over the next 180 years and then stabilize for the remainder of the simulation. There is no significant difference between the different alternate strategies and the proposed strategy in ecosystem carbon storage over time.

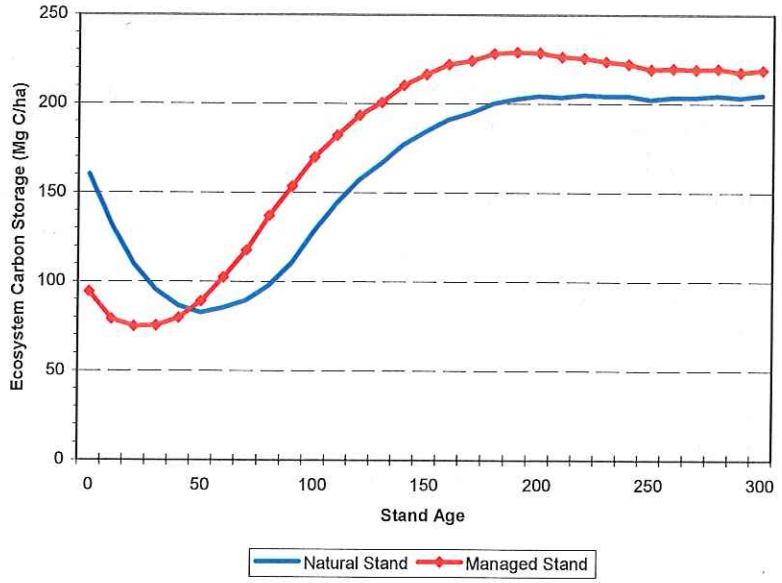


Figure 12: An Example of C Storage for a Natural Spruce Leading BWBS Mesic Site Stand (Forecast AU 5) and an Associated Managed Stand (Forecast AU m^3)

For comparison a stand level graph (Figure 12) is provided which demonstrates a natural stand and its associated managed stand C storage levels over time. Note that while the natural stand started with more C remaining on the site after the disturbance the managed stand catches up in about 40 years.

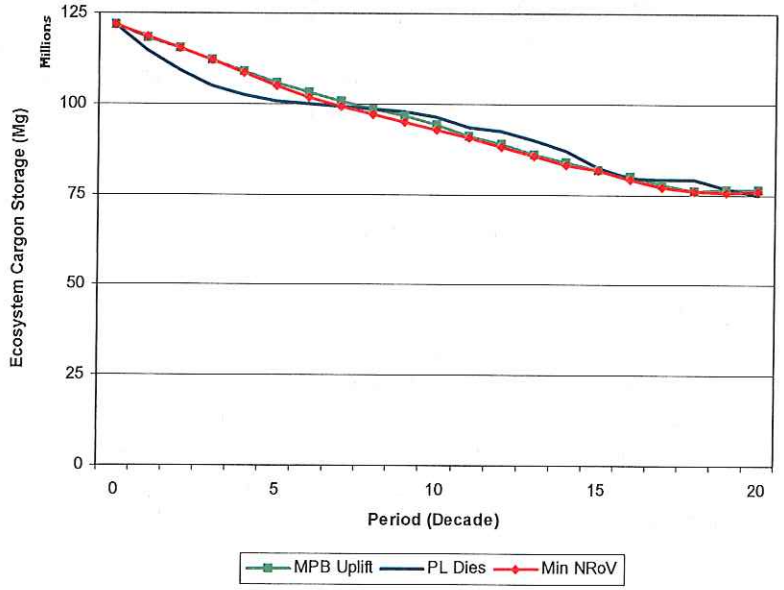


Figure 13: Total Ecosystem Carbon (Mg) Storage in the DFA Over Time

REVISIONS:

No revisions are suggested for this indicator or objective.

2.35 RANGE OPPORTUNITIES

Criterion 5:	Element(s): 5.1, 6.3
Economic and Social Benefits	Timber and Non-Timber Benefits; Forest Community Well-Being and Resilience
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA **6.3.1** Evidence that the organization has co-operated with other forest-dependant businesses, forest users, and the local community to strengthen and diversify the local economy	
Indicator Statement	**Target Statement**
Annual minimum number of Animal Unit Months opportunity	We will report out annually the number of Animal Unit Months that are authorized on the TFL.
Value(s): Timber and Non-Timber Multi-use Benefits, Strengthening and Diversifying Community Businesses and Business Opportunities	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities. We will provide opportunities for local economic development.	

STATUS AND COMMENTS:

In 2014, there was a total of 1,355 AUM's available on range tenures on TFL 48. This is only a slight increase in AUM's from 2013.

Table 18: AUM's on TFL48 in 2014

Range Tenure	Total AUM's	TFL Proportion (%)	TFL AUM's
RAN077560	665	40.5	272
RAN073263	104	1.2	1
RAN073616	366	26.5	97
RAN073876	767	34.9	268
RAN074239	51	100.0	51
RAN074307	356	39.8	142
RAN075557	0	0.1	0
RAN075680	105	87.9	98
RAN076149	157	2.8	4
RAN076313	170	0.04	0
RAN076505	118	9.9	12
RAN076672	699	58.7	410
Total			**1355**

REVISIONS:

No revisions are suggested for this indicator or objective.

2.36 HARVEST METHOD

Criterion 5:	Element(s): 5.1
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
Proportion (%) of coniferous harvesting area completed with conventional ground based methods by 5 year cut control period	A maximum of 84% of the coniferous harvesting area (ha) will be completed with conventional ground based methods by 5 year cut control period
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

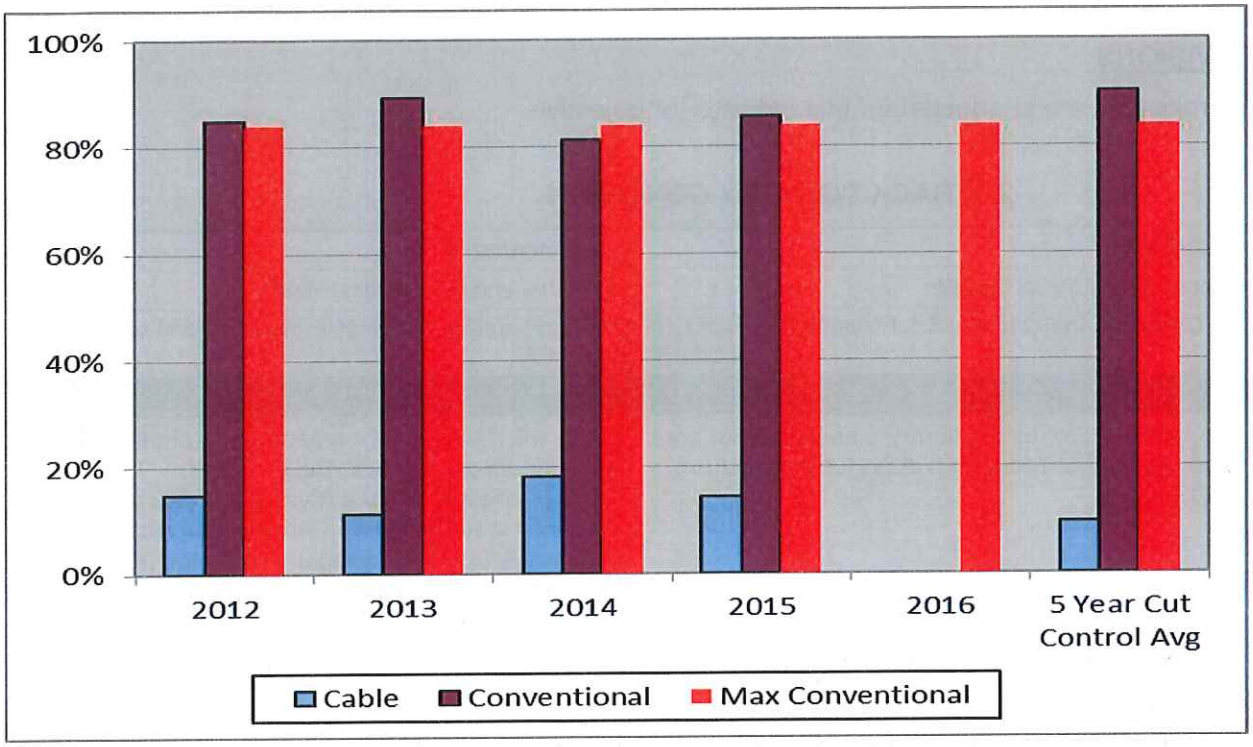
The following Figure 14 shows the history of the harvesting program over the cut control period 2012 – 2016. In both 2012 and 2013, the target was at 14.9% and 11.4% respectively utilizing the cable system; 85% and 89% of the area harvested used a conventional system in those years. By the end of 2014, 18.4% of the area harvested was done using a cable system with 81.5% harvested conventionally. To the end of March 31, 2015, Canfor had cable harvested about 14.4% using cable systems with 85.6% harvested conventionally. Overall, Canfor is on the right track working towards meeting the target of harvesting a maximum of 84% using conventional ground based methods for this 5 year cut control period.

Lumber market conditions have a direct effect on the pricing of forested stands. With poor market pricing the harvesting of stands using the cable system results in added costs that would not get recognized in the value of the stand. The added cost of utilizing cable harvesting is completely absorbed by the Licencees which have made many of these stands un-economical to harvest. As market conditions improve, and forest licencees in the interior of the province begin to harvest stands not infested by the Mountain Pine Beetle, the value of forest stands will increase which will make stands in the Chetwynd area more attractive to harvest using cable or other steep slope systems.

Canfor is working towards achieving the conventional/cable target and plans to increase the proportion of steep slope harvest on the TFL. Currently Canfor and other local licensees are faced with a lack of contractors that have the ability to operate cable or steep slope logging programs. This has been identified as a problem that will continue to challenge us in the near future. However advances in harvesting systems and machinery are providing increasing options for equipment to be used in steeper ground and we are subsequently looking at new and innovative ways to log on this steeper ground within the TFL, in order to increase the proportion of steep slope harvest.

In order to achieve this target in the remaining period left in this cut control period Canfor is developing a strategy to target harvesting approximately 100,000m^3 of volume by cable or other steep slope operations on an annual basis. Other Licensees that are provided the opportunity to harvest timber on the TFL (through timber sales or other agreements), are being encouraged to utilize cable systems as well. Volume allocated to the BCTS program now includes cable volume to ensure that the BCTS TFL 48 harvest program reflects the timber and operational profile of TFL 48.

Figure 14: Proportion of Conventional Harvest Systems Used 2012-2016



REVISIONS:

No revisions are suggested for this indicator or objective.

2.37 PROPORTION OF HARVESTING CONSISTENT WITH VISUAL QUALITY OBJECTIVE

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
Proportion of harvesting within known visual areas that are consistent with the Visual Quality Objective (VQO)	100% of harvesting within visual areas will be consistent with the Visual Quality Objective
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 there were 7 blocks (6 Canfor blocks and 1 BCTS block) that were harvested within areas requiring conformance with visual quality objectives. These blocks were all consistent with the VQO objectives.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.38 BACK COUNTRY CONDITION

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
Proportion (%)of back country areas (ha) that are in a semi-primitive recreation opportunity spectrum (ROS) class	We will maintain or increase semi-primitive ROS in Klin-se-za, Bocock, Butler Ridge, Pine/Lemoray, Peace River/Boudreau and Elephant Ridge/Gwillim Protected Areas and manage Special Management Zones (Klin se za, North Burnt, Dunlevy) as per LRMP (See Table for baseline)
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

There has been no change to the status of this indicator since reported in the SFMP 4 in 2005. In 2014 there was no harvesting or road construction in or adjacent to any of the backcountry areas, however a large fire in the Mount McAllister area burned very close to the Klin Se Za Park which may affect the ROS inventory. In 2015 the inventory data will be updated and reported in the 2015-2016 annual report.

The baseline (2001) and current (2005) recreational opportunity spectrum for the stated Backcountry areas are shown on the following tables (Table 18).

Table 19: Baseline Condition – ROS Inventory

Back Country Area	ROS Class Baseline Condition – (2001)							
	Roaded			Roaded Total	Semi Primitive		Semi Primitive Total	Grand Total
	Rural	Modified	Natural		Motorized	Non Motorized		
Bocock Peak						1,126	1,126	1,126
Butler Ridge			1,133	1,133	1,309	4,151	5,460	6,593
Dunlevy Creek			5,283	5,283	5,001	21,564	26,565	31,848
Elephant Ridge / Gwillim		12		12		2,801	2,801	2,813
North Burnt		53		53	6,076	10,683	16,759	16,813
Peace River / Boudreau	990			990		1,219	1,219	2,209
Pine - Lemoray					882	2,260	3,142	3,142

Back Country Area	ROS Class Baseline Condition – (2001)							
	Roaded			Roaded Total	Semi Primitive		Semi Primitive Total	Grand Total
	Rural	Modified	Natural		Motorized	Non Motorized		
Klin Se Za			0	0		2,668	2,668	2,669
Klin Se Za Headwaters			7,140	7,140	137	10,581	10,718	17,857
Klin Se Za Mountain			1,711	1,711		4,639	4,639	6,350
Grand Total	990	65	15,266	16,321	13,404	61,694	75,098	91,419

Table 19 Current Condition – ROS Inventory Updated to June 2005

Back Country Area	ROS Class (2005))							
	Roaded			Roaded Total	Semi Primitive		Semi Primitive Total	Grand Total
	Rural	Modified	Natural		Motorized	Non Motorized		
Bocock Peak						1,126	1,126	1,126
Butler Ridge			1,133	1,133	1,309	4,151	5,460	6,593
Dunlevy Creek			5,283	5,283	5,946	20,619	26,565	31,848
Elephant Ridge / Gwillim		12		12		2,801	2,801	2,813
North Burnt		53		53	7,874	8,886	16,759	16,813
Peace River / Boudreau	990			990		1,219	1,219	2,209
Pine - Lemoray					882	2,260	3,142	3,142
Klin Se Za			0	0		2,668	2,668	2,669
Klin Se Za Headwaters			7,140	7,140	137	10,581	10,718	17,857
Klin Se Za Mountain			1,711	1,711		4,639	4,639	6,350
Grand Total	990	65	15,266	16,321	16,147	58,951	75,098	91,419

REVISIONS:

No revisions are suggested for this indicator or objective

2.39 RECREATIONAL SITES

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
Number of recreational trails and campsites maintained by Canfor	Canfor will provide and/or maintain 1 backcountry trail and 3 campsites on TFL 48
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality and non-timber commercial values.	

STATUS AND COMMENTS:

Canfor maintains the Gething Creek, Carbon Lake and Wright Lake campsites and the Battleship Mountain Trail. The Gething and Carbon are road access sites. Wright Lake campsite is a remote wilderness site with off highway vehicle or hiking access. The Battleship Mountain trailhead is road accessible and in just a few hours you can be in the alpine. All of

these recreational values provide a number of outdoor activities (hunting, fishing, hiking and canoeing). All of the above recreational sites can be accessed from the Johnson Creek FSR.

In 2014 campsite maintenance was set to be tendered out to a local contractor however the Mount McAlister fire that started in late July prevented completion of maintenance activities due to road closures and the very active and unpredictable nature of the wildfire. While the campsites were not maintained by a local contractor, the campsites were still available for use and checked by a Canfor representative throughout the course of the year. A campsite maintenance contract was developed and awarded early in 2015 to ensure this indicator remains in compliance.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.40 CONSISTENCY WITH THIRD PARTY ACTION PLANS

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
Consistency with mutually agreed upon action plans for guides, trappers, range tenure holders, and other non-timber commercial interests	Operations 100% consistent with the resultant action plans
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

In the 2014-2015 reporting period there were no action plan agreements signed with any users on the TFL. Nor were there any pre-existing action plans requiring implementation in the 2014-2015 reporting year.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.41 WASTE

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
The percentage of blocks and roads assessed in which avoidable waste and residue levels are within the target range	Annually, 100% of cutblocks and roads will fall within the target avoidable waste and residue range where scale based stumpage is applied and waste and residue benchmarks are still in place.
Value(s): Timber and Non-Timber Multi-Use Benefits	

SFM Objective:
We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 there were a total of 45 blocks harvested by Canfor and BCTS. Of the 39 Canfor blocks, 11 blocks fell under scale based stumpage where waste benchmarks still apply. The blocks that were surveyed were below waste benchmarks. The remaining blocks are not subject to waste assessments as they were either under cruise based stumpage or tabular rate stumpage which requires the licensee to pay for all of the volume of timber that is within the stand. From the January 1, 2014 to March 31, 2015 reporting period neither Canfor nor BCTS reported any waste issues in the 2014-2015 reporting period.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.42 FOREST HEALTH

Criterion 5:	**Element(s): 5.1**
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	**Target Statement**
% of significant detected forest health damaging events which have treatment plans prepared	100% of significant detected forest health damaging events will have treatment plans prepared within 1 year of initial detection
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

In the period between January 1, 2014 and March 31, 2015, there were no major detections of forest health issues relative to managed stands. There was however one block (24.3 ha) planted in 2013 which was burned in the Mount McAllister forest fire which will need to be re-planted.

Fill planting in 2014 was required for one block (4.2 ha) which should bring all managed stands back to planting density requirements. In 2014 a total of 445.6 ha were brushed through aerial herbicide applications and an additional 49.1 ha were brushed manually.

While not yet significant, there are some signs of suspected spruce beetle infestations (<50 ha) noted in the southern portion of TFL 48 by MFLNRO forest health overview assessment flights. These areas will be closely monitored over the 2015 – 2016 reporting year and if required, a treatment plan will be developed. It was noted that there are some spruce trees showing signs of stress and in some areas single trees with significant pitch tubes. Preliminary checks were

completed and it was noted that there are areas where spruce beetle is beginning to show signs of heavier than usual infestations in the spruce trees.

In the 2014-2015 reporting period, the ongoing Mountain Pine Beetle (MPB) infestation was the only significant forest health agent of concern on TFL 48. In 2007 when the AAC was determined by the Chief Forester, the TSR package that was submitted to government to support the determination identified 26.8 million m^3 of pine volume susceptible to MPB attack. Quantifying the extent of MPB attack with much precision is very difficult. In 2010 the government designated the TFL as a "salvage" Emergency Bark Beetle Management Area. Since that time there has been little to no monitoring of the rate of spread or level of attack of MPB on the TFL. However the forest health overview assessments completed by the MFLNRO have indicated that the rate of spread has decreased as the main wave of attack has moved north out of the TFL.

The 2014 projection is based on a variety of assumptions that takes into account both age class and pine stand density. This area totals approximately 67,636 ha. The corresponding volume is determined by multiplying the default volume per ha of 275. The area assumption is based on aerial flights and field observations completed by MFLNRO and Canfor staff on the spread and extent of the MPB.

Of the 73.1 million m3 of conifer volume on the TFL, 27.3 million m3 (37%) is pine and of this, approximately 18.6 million m3 (25% of the total conifer and 68% of pine volume) is attacked by MPB.

Table 20: Summary of Forest Health Issues 2000-2014

Factor	2013 Volume (m^3)	2013 Area (ha)	2000-2013 Volume (m^3)	2000-2013 Area (ha)	2013 Comments
Blow Down	0	0	10,665	38.8	Derived area from volume /275.
Mountain Pine Beetle	1,844,275	8743	18,599,900	67,636	Derived volume based on .35 m^3 per tree. Derived area from volume /275.
Spruce Bark Beetle	0	0	1,800	6.5	Derived area from volume /275.
Fire	18,300	151	21,425	247.6	No salvage operations initiated. Volume estimated at 100% mortality and 300m^3/ha
Balsam Bark Beetle	0	0	0	0	Very light incidence in mountain areas.
Spruce Budworm	0	0	0	0	Possible incidence in 2000 – may have been misclassified.
Forest Tent Caterpillar	0	0	0	0	Scattered levels in 2000.
Environmental	0	0	0	0	Incidental and scattered snow damage – not quantifiable.
Total	**1,862,575**	**6,857**	**9,329,715**	**34,095.9**	

REVISIONS:

No revisions are suggested for this indicator or objective.

2.43 PROPORTION OF COMPLETED FOREST HEALTH ACTION PLANS

Criterion 5:	Element(s): 5.1
Economic and Social Benefits	Timber and Non-Timber Benefits
CSA Core Indicator(s): 5.1.1 Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	
Indicator Statement	Target Statement
Proportion of required actions completed as per forest health treatment plans	100% of required actions will be completed as per forest health treatment plans
Value(s): Timber and Non-Timber Multi-Use Benefits	
SFM Objective: We will provide opportunities for a feasible mix of timber, recreational activities, visual quality, and non-timber commercial activities.	

STATUS AND COMMENTS:

In the 2014-2015 reporting year there was only one directive regarding forest health and it is in regard to the harvest of MPB stands.

In June of 2010 the Ministry of Forests and Range released a memorandum regarding the Re-designation of Emergency Management Units. These units depict the location of various levels of Mountain Pine Beetle attack and associated with those levels of attack are one of three management strategies: aggressive; containment, and; salvage. The TFL was identified as an area that has sustained a high level of impact from the Mountain Pine beetle and was therefore identified as an area where the recommended management strategy is to harvest/salvage as much affected pine as possible. In 2007 when the Deputy Chief Forester determined the Annual Allowable Cut (AAC) for the TFL his direction/expectation for Canfor as the licensee was to direct harvesting towards pine leading stands with a target of exceeding 70% pine volume delivered.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.44 COMMUNITY DONATIONS

Criterion 5:	Element(s): 5.2
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.1 Level of investment in initiatives that contribute to community sustainability	
Indicator Statement	Target Statement
Canfor community donations per year	A minimum of $7,000/year will be made available for community donations
Value(s): Local Employment	
SFM Objective: We will ensure local communities and contractors have the opportunity to share in benefits such as jobs, contracts and sales.	

STATUS AND COMMENTS:

In the 2014-2015 reporting period a total of $17,331.27 was donated to various interest groups as well as over $1,200 dollars in products.

Monetary donations were made to the Chetwynd Medical Clinic; the Archie Shannon Ball/Golf Club which raises money for the local hospital and Senior's home, as well as the Peace Northern Caribou Committee.

Product donations included lumber to Camp Sagitawa for their housing project. A donation was also made to the Peace Northern Caribou Committee to aid in the up-grade and repairs of the maternal penning project. Over the 2014-2015 year, Chetwynd continued to receive funding for their dry grad program, scholarship funds and other amateur sports programs. In the 2014-2015 year was the addition of the Canfor sponsored, free Pancake Breakfast on the Saturday of the Chainsaw Carving Competition which is held annually.

REVISIONS:

No revisions are suggested for this indicator or objective.

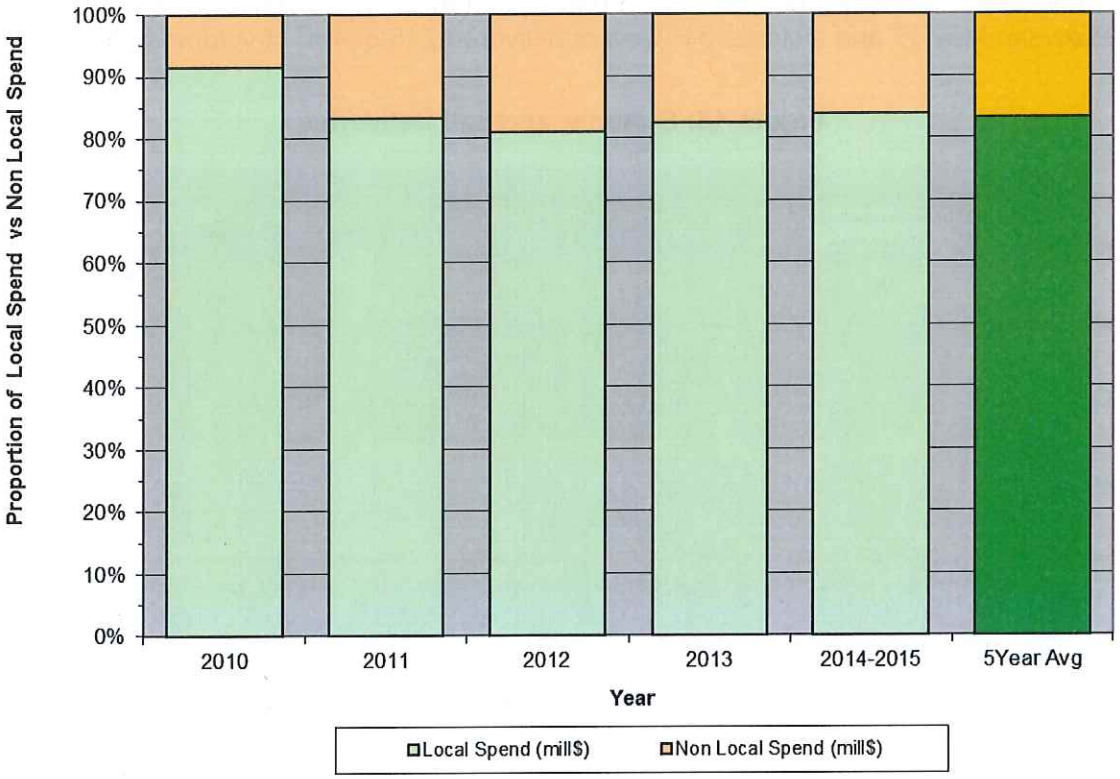
2.45 LOCAL EMPLOYMENT

Criterion 5:	**Element(s): 5.2**
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.1 Level of investment in initiatives that contribute to community sustainability	
Indicator Statement	**Target Statement**
The proportion of dollars spent on local versus non-local contractors	A 5 year rolling average of 65% of local vs. non-local contractors and an annual minimum of 50% local versus non-local
Value(s): Local Employment	
SFM Objective: We will ensure local communities and contractors have the opportunity to share in benefits such as jobs, contracts and sales.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015, not including stumpage, Canfor paid $57.1MM to all vendors. Local vendors or contractors were paid $47.9MM or 84% of total expenditures. The five-year rolling average from 2010 through to the end of March 31, 2015 saw 83% of expenditures made to local vendors or contractors.

Figure 15: Proportion of Dollars Spent on Local vs Non-Local Contractors



REVISIONS:

This indicator was reviewed by the PAC on April 22, 2015 suggesting consideration of increasing the target to up the "annual minimum of 50% local versus non-local" employment to match the 65% five year rolling average as the actual achievement is continually significantly higher than the 50% that is stated in the current target statement. Licensees were to review and comment on the proposal at the October 22, 2015 meeting. No further revisions are suggested for this indicator or objective.

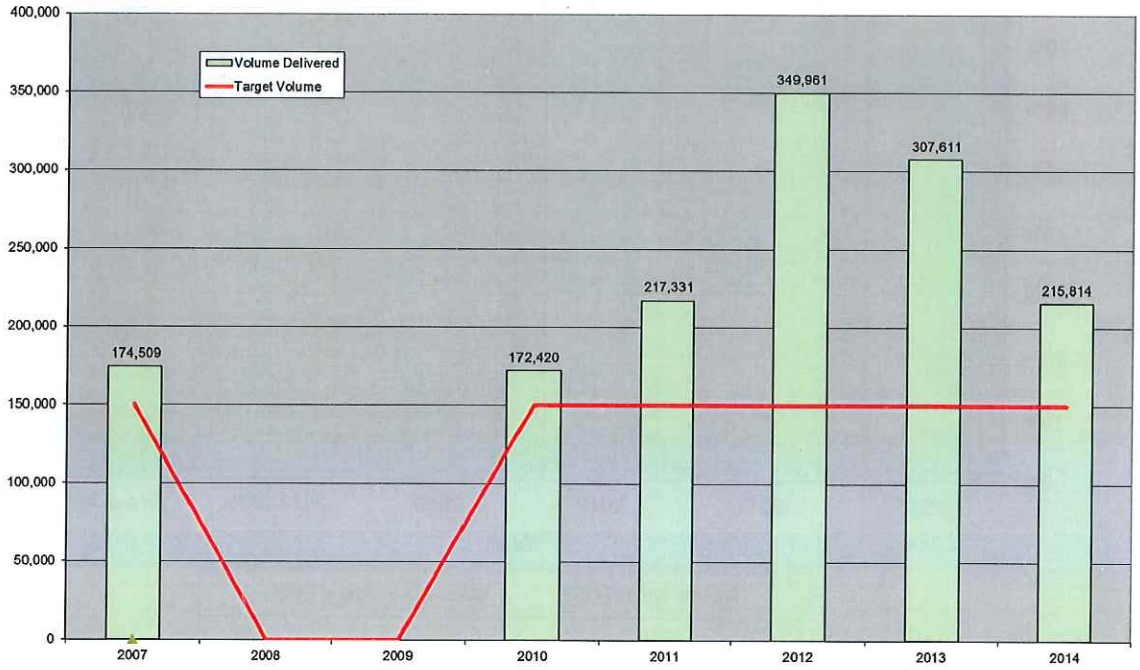
2.46 SUMMER AND FALL DELIVERIES

Criterion 5:	**Element(s): 5.2**
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.1 Level of investment in initiatives that contribute to community sustainability	
Indicator Statement	Target Statement
Volume (m^3) of timber delivered annually to Canfor Chetwynd mill between May 1st and October 31st	Minimum of 150,000 m^3 coniferous delivered to Canfor Chetwynd mill
Value(s): Local Employment	
SFM Objective: We will ensure local communities and contractors have the opportunity to share in benefits such as jobs, contracts and sales.	

STATUS AND COMMENTS:

This indicator was suspended in 2008 and 2009 when the mill was curtailed. There has been consistent achievement of this indicator when the mill is operating. In 2014 there was no significant downtime to mill operations. The only month that had no deliveries was the month of May. Between May 1st and October 31st Canfor delivered 215,814m^3 of volume to the Chetwynd mill.

Figure 15: Summer and Fall Deliveries



REVISIONS:

No revisions are suggested for this indicator or objective.

2.47 LEVEL OF INVESTMENT IN TRAINING AND SKILLS DEVELOPMENT

Criterion 5:	**Element(s): 5.2**
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.2 Level of investment in training and skills development	
Indicator Statement	Target Statement
Consistency with training plans and requirements	Training will be 100% consistent with established training requirements
Value(s): Investment in People	
SFM Objective: We will invest resources to enhance safety and environmental knowledge and performance.	

STATUS AND COMMENTS:

All BCTS staff was trained according to their training requirements. All Canfor staff completed their required training in the 2014 – 2015 reporting period.

REVISIONS:

No revisions are suggested for this indicator or objective.

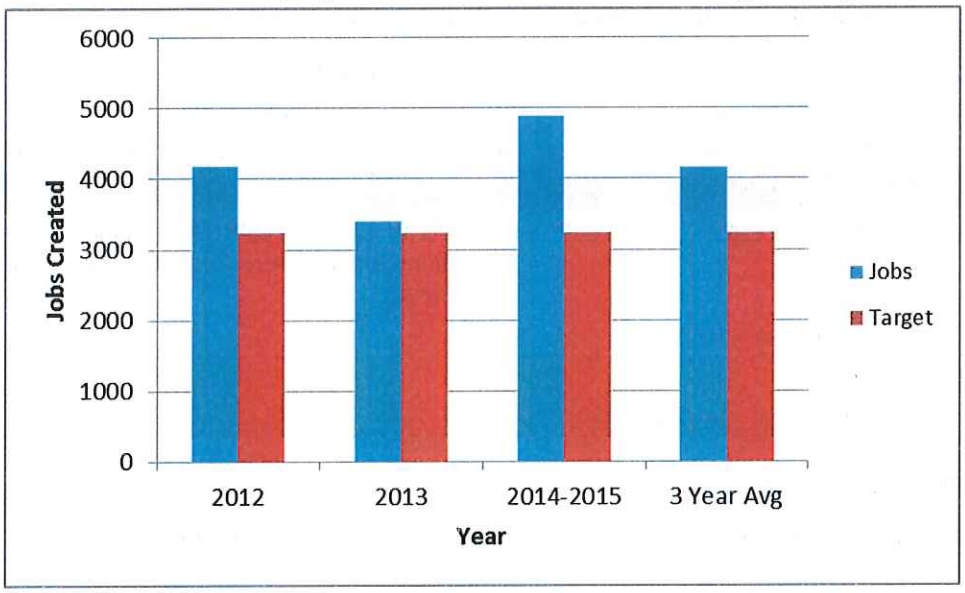
2.48 LEVEL OF DIRECT AND INDIRECT EMPLOYMENT

Criterion 5:	Element(s): 5.2
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.3 Level of direct and indirect employment	
Indicator Statement	Target Statement
Level of direct and indirect employment	AAC* employee multiplier, 3 year rolling average
Value(s): Local Employment	
SFM Objective: We will contribute to local employment.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 the number of direct and indirect jobs created by the harvesting of timber from the TFL was 3,391. Target employment is achieved when 100% of the volume available in the Annual Allowable Cut (AAC) is harvested. Achievement of indicator is based on the harvest performance in a 3 year period. See table below for current status.

Table 21: Employment Created – 3 Year Rolling Average



REVISIONS:

No revisions are suggested for this indicator or objective.

2.49 LEVEL OF ABORIGINAL PARTICIPATION IN THE FOREST ECONOMY

Criterion 5:	Element(s): 5.2
Economic and Social Benefits	Communities and Sustainability
CSA Core Indicator(s): 5.2.4 Level of Aboriginal participation in the forest economy	
Indicator Statement	Target Statement
Opportunities available for First Nations to participate in the forest economy	Report annually the number and type of opportunities available to First Nations to participate in the forest economy
Value(s): Forest Economy	
SFM Objective: We will seek Aboriginal participation in the forest economy	

STATUS AND COMMENTS:

In 2014-2015 reporting period there were 7 opportunities for First Nations to be involved in the forest economy. Canfor put out a contract for one project for Recreation site maintenance on the TFL and there were 6 timber sale licences that were offered to the public by BCTS.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.50 FIRST NATIONS AWARENESS TRAINING

Criterion 6:	Element(s): 6.1
Society's Responsibility	Aboriginal and Treaty Rights
CSA Core Indicator(s): 6.1.1 Evidence of a good understanding of the nature of Aboriginal title and rights	
Indicator Statement	Target Statement
First Nations awareness training.	100% of Canfor and BCTS staff involved with First Nations shall receive First Nations awareness training.
Value(s): Treaty and Aboriginal Rights	
SFM Objective: We will recognize and respect Treaty 8 Rights.	

STATUS AND COMMENTS:

All Canfor and BCTS staff have received First Nations awareness training.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.51 CONSULTATION AND INFORMATION SHARING WITH FIRST NATIONS ON MANAGEMENT PLANS

Criterion 6:	Element(s): 6.1, 6.4
Society's Responsibility	Aboriginal and Treaty Rights; Fair and Effective Decision-Making
CSA Core Indicator(s): 6.1.2 Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans **6.4.3** Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities	
Indicator Statement	Target Statement
Consultation and Information sharing with First Nations on management plans	Information Sharing and Consultation will occur with affected First Nations on 100% of Management Plans
Value(s): Treaty and Aboriginal Rights, Level of Knowledge for Decision Making	
SFM Objective: We will recognize and respect Treaty 8 Rights. We will provide information to public and First Nations about forest ecosystem values and management. We will have an effective and satisfactory process that enables public participation of stakeholders and First Nations.	

STATUS AND COMMENTS:

Numerous meetings, discussions, and flights have taken place over the 2014-2015 reporting year to ensure First Nations are provided an opportunity to provide comments and share site specific information relating to the various Annual Operating Plans/Fibre Development Plans. At the request of First Nations the information sharing process has changed slightly to include a smaller number of blocks shared more frequently with digital files being included in an acceptable format to allow for GIS overlay with Traditional Use Data held by First Nations.

In the 2014 reporting year the information sharing process was revised to include the referral of general areas to be considered for block development ahead of the actual block design and proposed block information sharing process. The purpose of adding an opportunity to comment earlier in the proposed block design process was to allow First Nations to comment on the larger polygon to identify site specific concerns First Nations have about the area that could be incorporated into the block design process. These comments could then be considered in the proposed block development stage and allow for more dialogue between Canfor and First Nations to ensure concerns were addressed as early as possible. This process is being monitored and is subject to revision at the request of First Nations and Canfor but so far seems to be working well.

Canfor Management Plans consulted on included: (1) Both the spring 2014 and the fall 2014 Annual Operating Plans/Fibre Development Plans which identifies proposed harvest cut blocks for both Canfor and BCTS, (2) two Mt. McAllister Fire Salvage Plans; one shared in October 2014 and the other shared as part of the fall 2014 Annual Operating Plan/Fibre Development Plan, (3) the 2015 spring Annual Operating Plan/Fibre Development Plan, and (4) both the 2014 and 2015 Notification of Intent to Treat (NIT) which lists the reforested areas that are scheduled for vegetative control utilizing herbicides. BCTS also consulted on a Notification of Intent to Treat (NIT) which listed the reforested areas that are scheduled for vegetative control utilizing herbicides for timber sales that were previously offered and sold by BCTS.

REVISIONS:

No revisions are suggested for this indicator.

2.52 DIVERSIFYING THE LOCAL ECONOMY

Criterion 6:	Element(s): 6.3
Society's Responsibility	Forest Community Well-Being and Resilience
CSA Core Indicator(s): 6.3.1 Evidence that the organization has co-operated with other forest-dependant businesses, forest users, and the local community to strengthen and diversify the local economy	
Indicator Statement	**Target Statement**
Primary and by-products that are bought, sold, or traded with other forest dependent businesses in the local area.	On an annual basis at least 5 first order wood products will be provided for production from trees harvested from the DFA.
Value(s): Strengthening and Diversifying Community Businesses and Business Opportunities	
SFM Objective: We will provide opportunities for local economic development.	

STATUS AND COMMENTS:

Over 2014-2015 reporting year there were 5 products (lumber, trim blocks, chips, white wood, and hog) produced by the Chetwynd Sawmill. All of these products were sold or had agreements in place for their use. Late in the 2014 year saw the beginning development of a pellet mill/energy plant (Chetwynd Pellet Mill) in partnership with Canfor Chetwynd, to utilize the sawdust waste from the sawmill and create pellets which will be sold while the energy generated will be re-routed to run the pellet plant and off-set some of the energy consumption in the planer mill and potentially even the sawmill. This project is hoped be complete during the fourth quarter of 2015.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.53 SAFETY OVER THE DFA

Criterion 6:	Element(s): 6.3
Society's Responsibility	Forest Community Well-Being and Resilience
CSA Core Indicator(s): 6.3.2 Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities **6.3.3** Evidence that a worker safety program has been implemented and is periodically reviewed and improved	
Indicator Statement	**Target Statement**
Implementation and maintenance of certified safety program	Canfor and BCTS will implement and maintain certified safety programs
Value(s): Level of Safety Committed to Operations	
SFM Objective: We will maintain safety certification and contribute to improving the safety of operations on the DFA	

STATUS AND COMMENTS:

Throughout the 2014-2015 year Canfor operated under its Occupational Health & Safety system and maintained its BC Forest Safety Council Safe Companies Certification. BCTS also maintained their Safe Companies Certification.

To ensure safety is of the utmost priority, Canfor and BCTS require that all contractors who conduct work on the DFA are also Safe Companies Certified or certified to an equivalent safety certification standard.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.54 PUBLIC ADVISORY COMMITTEE SATISFACTION

Criterion 6:	**Element(s): 6.4**
Society's Responsibility	Fair and Effective Decision-Making
CSA Core Indicator(s): 6.4.1 Level of participant satisfaction with the public participation process **6.4.2** Evidence of efforts to promote capacity development and meaningful participation in general	
Indicator Statement	**Target Statement**
PAG established and maintained a satisfaction survey established according to Terms of Reference	80% satisfaction from surveys
Value(s): Level of Knowledge for Decision Making	
SFM Objective: We will provide information to public and First Nations about forest ecosystem values and management. We will have an effective and satisfactory process that enables public participation of stakeholders and First Nations.	

STATUS AND COMMENTS:

Throughout the 2014-2015 reporting year, the PAC was much more successful in getting back on track. Between January 1, 2014 and March 31, 2015 there were three PAC meetings and one field tour conducted. The PAC reviewed all mandatory items including the 2013 and 2014 Matrix, the Terms of Reference and discussions were held regarding the Timber Supply Review for the Allowable Annual Cut uplift applied for by Canfor, and the Draft Sustainable Management Plan #5. The PAC also completed an assessment of the PAC satisfaction with the public participation process.

The PAC's level of satisfaction with the public participation process was assessed using a standardized survey administered at both the January 2014 meeting as well as the May 29, 2014 meeting. Overall the PAC is satisfied with the process but are concerned with the recruitment efforts of the licensees and would like to see more effort put into the recruiting of new members and public for the meetings. As a result more effort has been put into actively recruiting new members and soliciting public attendance at these meetings. Recruitment ads are run in the local papers prior to the PAC meetings and the Canfor Planning Supervisor calls PAC members prior to the meetings to help encourage member participation. The average satisfaction score achieved was 4.3 out of 5 or 86%.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.55 PUBLIC ADVISORY COMMITTEE

Criterion 6:	Element(s): 6.4
Society's Responsibility	Fair and Effective Decision-Making
CSA Core Indicator(s): 6.4.2 Evidence of efforts to promote capacity development and meaningful participation in general	
Indicator Statement	Target Statement
Public Advisory Committee	We will establish and maintain Public Advisory Committee and generally hold at least one meeting annually.
Value(s): Level of Knowledge for Decision Making	
SFM Objective: We will provide information to public and First Nations about forest ecosystem values and management. We will have an effective and satisfactory process that enables public participation of stakeholders and First Nations.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 there were three PAC meetings and one field tour conducted. The January 22, 2014 meeting reviewed the mandatory 2013 items and by October the PAC had reviewed all mandatory items bringing the PAC up-to-date on all items required to be discussed including the 2014 Matrix, the Terms of Reference and discussions were held regarding the Timber Supply Review for the Allowable Annual Cut uplift applied for by Canfor, and the Draft Sustainable Management Plan #5.

Table 22: Public Advisory Committee Meetings

Year	Number of PAC Meetings
2008	1
2009	1
2010	1
2011	3
2012	2
2013	0
January 1, 2014- March 31, 2015	4

The Chetwynd PAC aims to have two or three meetings per year with a field trip each year during the months of June or July to inform members about forestry activities.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.56 PUBLIC ADVISORY COMMITTEE TERMS OF REFERENCE

Criterion 6:	Element(s): 6.4
Society's Responsibility	Fair and Effective Decision-Making
CSA Core Indicator(s): 6.4.2 Evidence of efforts to promote capacity development and meaningful participation in general	
Indicator Statement	Target Statement
Terms of reference (TOR) for the Chetwynd TFL 48	Obtain PAC acceptance of TOR for public

DFA public participation process	participation process bi-annually (every 2 years)
Value(s): Level of Knowledge for Decision Making	
SFM Objective: We will provide information to public and First Nations about forest ecosystem values and management. We will have an effective and satisfactory process that enables public participation of stakeholders and First Nations.	

STATUS AND COMMENTS:

Due to the lack of meetings held in 2013, the TOR was reviewed and updated with the PAC on January 30, 2014. The 'Roles and Responsibilities related to the PAC' and the 'Decision Making Methodology' were updated. The next required review of the PAC Terms of Reference will be in 2016.

The target was achieved.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.57 EDUCATIONAL OPPPORTUNITIES

Criterion 6:	**Element(s): 6.5**
Society's Responsibility	Information for Decision-Making
CSA Core Indicator(s): 6.5.1 Number of people reached through educational outreach	
Indicator Statement	**Target Statement**
The number of forestry related educational opportunities provided to the general public	On an annual basis two or more opportunities will be conducted that will promote forestry awareness to the general public.
Value(s): Level of Knowledge for Decision Making	
SFM Objective: We will have an effective and satisfactory process that enables public participation of stakeholders and First Nations.	

STATUS AND COMMENTS:

Between January 1, 2014 and March 31, 2015 there were three activities that were conducted to promote the awareness of forestry to the general public.

In March 2015 Canfor participated in the Chetwynd Tradeshow where the public was able to learn a bit about Canfor's Mill, the Safety Program and the Public Advisory Committee and the opportunities for membership.

In July 2014 a field tour was conducted for the PAC which invited the public to attend to learn more about forestry operations on the TFL which toured areas where herbicide treatments had occurred, and wildlife management practices were discussed. Both the PAC members and the public were able to ask questions about Canfor's practices and see how those practices were actually implemented on the ground.

In October 2014 Canfor participated in an annual event sponsored by COFI (Council of Forest Industries) that seeks to educate local grade schools with regard to forest management. A variety of Canfor's supervising foresters presented and conducted training on some of the various aspects of forestry duties such as silviculture, eco-typing, navigation (map reading and compassing), and timber cruising activities, to a group of 30 students and 2 teachers.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.58 RESPONSE TO PUBLIC INQUIRIES

Criterion 6:	**Element(s): 6.5**
Society's Responsibility	Information for Decision-Making
CSA Core Indicator(s): 6.5.2 Availability of summary information on issues of concern to the public	
Indicator Statement	**Target Statement**
Percentage of timely responses to public inquires	We will respond to 100% of public inquiries concerning our forestry practices within one month of receipt and provide summary to PAC annually
Value(s): Level of Knowledge for Decision Making	
SFM Objective: We will provide information to public and First Nations about forest ecosystem values and management.	

STATUS AND COMMENTS:

In 2014-2015 there was only one inquiry from the public regarding Canfor's operations on the TFL. The questions were about silviculture practices, timing of harvesting and locations of harvesting operations and a request for maps of Canfor's operations in and around a certain trap line.

The requested information was provided within the target timeline.

REVISIONS:

No revisions are suggested for this indicator or objective.

2.59 DISTRIBUTION/ACCESS TO SFM PLAN, ANNUAL REPORTS AND AUDIT RESULTS

Criterion 6:	**Element(s): 6.5**
Society's Responsibility	Information for Decision-Making
CSA Core Indicator(s): 6.5.2 Availability of summary information on issues of concern to the public	
Indicator Statement	**Target Statement**
Distribution/access to SFM Plan, Annual Reports and Audit Results	All SFM plans, annual reports, and audit reports will be made available during open houses, on Canfor's website (http://www.canfor.com/sustainability/certification/csa.asp), others upon request and distributed to PAC members and advisors

Value(s): Level of Knowledge for Decision Making
SFM Objective: We will provide information to public and First Nations about forest ecosystem values and management.

STATUS AND COMMENTS:

The SFM Plan for TFL 48 is available on Canfor's website at the following location (http://www.canfor.com/responsibility/environmental/certification). Also included are copies of annual reports and summaries of the 3rd party external audits completed on TFL 48. Copies of the above were circulated to members of the PAC.

TFL 48 was also randomly audited in 2012 by the Forest Practices Board. Results of the audit were made publicly available in 2013 by the Forest Practices Board. These audit results were discussed with the PAC during the January 2014 PAC meeting.

On-site internal and external audits were conducted in 2014 for TFL 48 and the results of both audits were discussed with the PAC in the October 2014 PAC meeting.

REVISIONS:

No revisions are suggested for this indicator or objective.

1 ABBREVIATIONS AND DEFINITIONS

AAC	Annual Allowable Cut
AOA	Archaeological Overview Assessment
AOP	Annual Operating Plan
AIA	Archaeological Impact Assessment
AUM	An animal unit month (AUM) is the quantity of forage consumed by a 450-kg cow (with or without calf) in a 30-day period.
BEC	Biogeoclimatic Ecological Classification
BWBS	Boreal White and Black Spruce BEC zone
CMI	Change Monitoring Inventory plots used to assess long term performance of managed stands
CMT	Culturally Modified Tree
COSEWIC	Committee on Status of Endangered Wildlife in Canada
DCMP	Dunlevy Creek Management Plan
DFA	Defined Forest Area. Used interchangeably with TFL or TFL 48
ESSF	Engleman Spruce Subalpine Fir BEC zone
FDP	Forest Development Plan
FSP	Forest Stewardship Plan. Replaces FDP under the Forest and Range Practices Act
Genus	Canfor's forest information management system. Includes both spatial and attribute information for our operational data including harvest areas, roads, and silviculture.
GPS	Global Positioning System
GY	Growth and Yield
LRMP	Land and Resource Management Plan
LTHL	Long Term Harvest Level
LTSY	Long Term Sustained Yield
LU	Landscape Unit
MFLNRO	Ministry of Forests, Lands and Natural Resource Operations
NIT	Notification of Intent to Treat
NDU	Natural Disturbance Units
NVAF	Net Volume Adjustment Factor
OSB	Oriented Strand Board
PAC	• Permanent Access Corridors (also Permanent Access Structures is used) • Public Advisory Committee
Phase 2 plots	Unbiased ground sample plots completed as part of the Vegetation Resource Inventory for TFL 48.

	http://srmwww.gov.bc.ca/vri/standards/index.html - vri
ROS	Recreation Opportunity Spectrum
RMZ	Riparian Management Zone
RRZ	Riparian Reserve Zone
SBS	Sub Boreal Spruce BEC zone
SFM(P)	Sustainable Forest Management (Plan)
SP	Site Plan/Silviculture Prescription (Forest and Range Practices Act/Forest Practices Code Act of BC)
TFL	Tree Farm Licence
TSA	Timber Supply Area
TSR	Timber Supply Review
TUS	Traditional Use Study
VQO	Visual Quality Objective
VIA	Visual Impact Assessment
VLI	Visual Landscape Inventory
VRI	Vegetation Resource Inventory
VSC	Visual Sensitivity Class
WCB	Workers Compensation Board
WTP	Wildlife Tree Patch