

Fort St James

Sustainable Forest Management Plan



2015/16 Annual Report



TABLE OF CONTENTS

1.0 Introduction	3
1.1 List of Acronyms	3
1.2 Executive Summary	4
1.3 SFM Performance Reporting	5
2.0 SFM Indicators, Targets and Strategies	6
1 - Retention of rare ecosystem groups across the DFA	6
2 - Percent distribution of forest type (treed conifer, treed broadleaf, treed mixed) >20 years old across DFA	6
3 - Percent late seral distribution by ecological unit across the DFA	7
4 - Maintain a variety of young patch sizes in an attempt to approximate natural disturbance	9
5 - Percent of stand structure retained across the DFA in harvested areas	11
6 - The number of cut blocks harvested that are not consistent with riparian management commitments	11
7 - Percent of forest management activities consistent with management strategies (both landscape and stand level) for Species at Risk and/or Species of Management Concern	12
8 - Regeneration will be consistent with provincial regulations and standards for seed and vegetative material use	13
9 - Percent of forest management activities consistent with management strategies for protected areas and sites of biological significance as contained in operational plans	13
10 - % of identified Aboriginal forest values, knowledge and uses considered in forestry planning processes	14
11 - The regeneration delay, by area, for stands established annually	15
12 - Percentage of gross forest land base in the DFA converted to non-forested land use through forest management activities	15
13 - Existing areas of non-forested types artificially converted to forest types	15
14 - Percent of volume harvested compared to allocated harvest level	16
15 - Percent of harvested blocks meeting soil disturbance objectives identified in plans	16
16 - Percent of cut blocks where post harvest CWD levels are within the targets contained in Plans	17
17 - Sensitive watersheds that are above Peak Flow Index targets will have assessment if harvesting planned	18
18 - % of high hazard drainage structures in sensitive watersheds with identified water quality concerns that have mitigation strategies implemented	18
19 - Percent of road related soil erosion events that introduce sediment into a stream identified in annual road inspections that are addressed	18
20 - Percentage of crossing structures planned and installed on fish streams to a reasonable design and sediment control standard (allow for adequate fish passage - dependant on the presence/absence of fish)	19
21 - Percent of standards units declared annually that meet free growing requirements on or before the free growing date	19
22 - Conformance with strategies for non-timber benefits identified in Plans	20
23 - Total percentage of forest operations that are consistent with a landscape level strategy for the management of recreational, commercial and cultural trails as identified in the DFA	20
24 - Percentage of roads deactivated that meet the deactivation criteria	21
25 - Investment in local communities	21
26 - Training in environmental & safety procedures in compliance with company training plans	22
27 - Level of Direct & Indirect Employment	22
28 - Number of opportunities for First Nations to participate in the forest economy	23
29 - Employees will receive appropriate First Nations Awareness Training	23
30 - Evidence of best efforts to share interests and plans with Aboriginal communities	24
31 - % of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses	24
32 - Effective communication and co-operation with non-timber resources users and interested parties that have expressed interest in forest planning	25
33 - The number of support opportunities provided in the DFA	26
34 - Implementation and maintenance of a certified safety program	27
35 - Percent of PAG meeting evaluations completed during the reporting period that obtain a minimum average acceptability score of 3	27
36 - Number of educational opportunities for information/training that are delivered to the PAG	27
37 - The number of educational opportunities provided	28
38 - SFM Annual report made available to the public	28

1.0 Introduction

This is the Annual Report for the Fort St James Sustainable Forest Management Plan (SFMP), covering the reporting period of April 1, 2015 to March 31, 2016. The SFMP is a result of Canfor's effort to achieve and maintain Canadian Standards Association (CSA) certification to the CSA Z809-08 standard¹.

The SFMP includes a set of values, objectives, indicators and targets that address environmental, economic and social aspects of forest management in the Fort St James Defined Forest Area. An SFMP developed according to the CSA standard sets performance objectives and targets over a defined forest area (DFA) to reflect local and regional interests. The CSA standard requires compliance with existing forest policies, laws and regulations. Changes to this annual report reflect the 2008 (CSA Z809-08) standard requirements as embodied in the Fort St James Defined Forest Area SFMP – July 2012.

It is important to note that the Fort St James SFMP is a working document and is subject to continual improvement. Over time, the document will incorporate new knowledge, experience and research in order to recognize society's environmental, economic and social values.

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

The following Table summarizes the results for the current reporting period. For clarification of the intent of the indicators, objectives or the management practices involved, the reader should refer to the Fort St James Sustainable Forest Management Plan document (July 2012).

1.1 List of Acronyms

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

BCTS – BC Timber Sales

BEC – Biogeoclimatic Ecosystem Classification

CSA – Canadian Standards Association

CE & VOIT- Criterion, Element & Value Objective Indicator Target

DFA – Defined Forest Area

FPPR – Forest Planning and Practices Regulation

FSJ – Fort St James

LOWG – Landscape Objectives Working Group

MoFR – Ministry of Forest and Range

NDU – Natural Disturbance Unit

PAG – Public Advisory Group

PG – Prince George

PG TSA – Prince George Timber Supply Area

SAR – Species at Risk

SFM – Sustainable Forest Management

SFMP – Sustainable Forest Management Plan

1.2 Executive Summary

For each off-target indicator, a corrective and preventative action plan is included in the indicator discussion.

Table 1: Summary of Indicator Status

Indicator Number	Indicator Statement	Target Met	Target Not Met	
1	1.1.1	Retention of rare ecosystem groups across the DFA	X	
2	1.1.2	Percent distribution of forest type (treed conifer, treed broadleaf, treed mixed) >20 years old across DFA	X	
3	1.1.3(a)	Percent late seral distribution by ecological unit across the DFA	X	
4	1.1.3(b)	Maintain a variety of young patch sizes in an attempt to approximate natural disturbance.		X
5	1.1.4(a)	Percent of stand structure retained across the DFA in harvested areas	X	
6	1.1.4(b)	The number of cut blocks harvested that are not consistent with riparian management commitments.	X	
7	1.2.1 & 1.2.2	Percent of forest management activities consistent with management strategies (both landscape and stand level) for Species at Risk and/or Species of Management Concern.	X	
8	1.2.3 & 1.3.1 & 1.2.2	Regeneration will be consistent with provincial regulations and standards for seed and vegetative material use.	X	
	1.3.1	See 1.1.2, 1.1.3(a), 1.1.3(b), 1.2.1, 1.2.3, 1.4.1		
9	1.4.1	Percent of forest management activities consistent with management strategies for protected areas and sites of biological significance.	X	
10	1.4.2	% of identified Aboriginal and non-aboriginal forest values, knowledge and uses considered in forestry planning processes.	X	
11	2.1.1	Average Regeneration delay for Stands Established Annually	X	
12	2.2.1a	Percentage of gross forest landbase in the DFA converted to non-forest land use through forest management activities.	X	
13	2.2.1 b	Existing areas of non-forested types artificially converted to forest types.	X	
14	2.2.2	Percent of volume harvested compared to allocated harvest level.	X	
15	3.1.1	Percent of harvested blocks meeting soil disturbance objectives identified in plans.	X	
16	3.1.2	Percent of audited cut blocks where post harvest CWD levels are within the targets contained in Plans.	X	
17	3.2.1(a)	Sensitive watersheds that are above Peak Flow Index targets will have further assessment if further harvesting is planned.	X	
18	3.2.1(b)	% of high hazard drainage structures in sensitive watersheds with identified water quality concerns that have mitigation strategies implemented	X	
19	3.2.1(c)	Percent of road related soil erosion events that introduce sediment into a stream identified in annual road inspections that are addressed.	X	
20	3.2.1 (d)	Percentage of crossing structures planned and installed on fish streams to a reasonable design and sediment control standard (allow for adequate fish passage - dependant on the presence/absence of fish).	X	
21	4.1.1 (a)	Percent of standards units declared annually that meet free growing requirements on or before the free growing date.	X	
	4.2.1	See 2.2.1(a)		
	5.1.1(a)	See 2.2.2, 4.1.1(a)		

Indicator Number		Indicator Statement	Target Met	Target Not Met
22	5.1.1(b)	Conformance with strategies for non-timber benefits identified in plans	X	
23	5.1.1(c)	Total percentage of forest operations that are consistent with a landscape level strategy for the management of recreational, commercial and cultural trails as identified in the DFA.	X	
24	5.1.1(d)	Percentage of roads deactivated that meet the deactivation criteria.	X	
25	5.2.1(a)	Investment in local communities	X	
26	5.2.2	Training in environmental & safety procedures in compliance with company training plans	X	
27	5.2.3	Level of direct & indirect employment	X	
28	5.2.4	Number of opportunities for First Nations to participate in the forest economy.	X	
29	6.1.1	Employees will receive appropriate First Nations Awareness Training	X	
30	6.1.2	Evidence of best efforts to share interests and plans with Aboriginal communities	X	
31	6.1.3	% of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses.	X	
	6.2.1	(see 1.4.2)		
32	6.3.1(b)	Effective communication and co-operation with non-timber resources users and interested parties that have expressed interest in forest planning.	X	
33	6.3.1(c)	The number of support opportunities provided in the DFA.	X	
34	6.3.2 & 6.3.3	Implementation and maintenance of a certified safety program	X	
35	6.4.1	Percent of PAG meeting evaluations completed during the reporting period that obtain a minimum average acceptability score of 3.	X	
36	6.4.2	Number of educational opportunities for information/training that are delivered to the PAG	X	
	6.4.3	See 6.1.2		
37	6.5.1	The number of educational opportunities provided	X	
38	6.5.2	SFM Annual report made available to the public.	X	
		Totals	37	1

1.3 SFM Performance Reporting

This annual report will describe the success of the licensee in meeting the indicator targets over the DFA. The report is available to the public and will allow for full disclosure of forest management activities, successes, and failures.

2.0 SFM Indicators, Targets and Strategies

Indicator Statement	1 - Retention of rare ecosystem groups across the DFA
CSA Indicators	1.1.1 Ecosystem area by type
Target and Variance	Target: 0 hectares Variance: Access construction where no other practicable route is feasible.
Methodology of Measurement	WIM REPORT – report created that pulls site series from SP’s from blocks that were harvested in the reporting period. These are reviewed to see if any rare sites (pure and mappable) have been harvested
Was the Target Met?	Yes
The are no reported hectares harvested in the reporting year for Canfor.	

Indicator Statement	2 - Percent distribution of forest type (treed conifer, treed broadleaf, treed mixed) >20 years old across DFA
CSA Indicators	1.1.2 Forest area by type or species composition
Target and Variance	Target: Douglas-fir to 2% within 20 years; Treed Broadleaf: >1%; Treed Mixed: >4% Variance: None below proposed targets
Methodology of Measurement	TSR – This indicator will remain static until the next Timber Supply Review happens (every 5 years). This indicator will be updated with the new information at that time.
Was the Target Met?	Yes

Table 1: Forest area by type or species

Forest Type	Forest Area (ha)	Forest Area (%)
Coniferous	904,207	92.0
Broadleaf	26,979	2.7
Mixed	52,194	5.3
Total	983,380	100

Currently Douglas-fir comprises approximately 1.6% of the Forest Area in the DFA. Data includes licensee Operating Areas within the DFA, Parks & Protected Areas Apportionment. Based on the Vegetation Resources Inventory, the areas have been reduced for roads, seismic lines, oil & gas tenures, and other non-THLB areas.

Indicator Statement	3 - Percent late seral distribution by ecological unit across the DFA
CSA Indicators	1.1.3(a) Forest area by seral stage or age class (late seral) 4.1.1 Net carbon uptake
Target and Variance	Target: 100% old forest, old forest interior and none pine targets as per Jan. 2012 PG TSA Biodiversity Order Variance: 0%
Methodology of Measurement	LOWG REPORT – The LOWG group produces the official data to analyze performance towards the Old Growth Order for all Districts in the PGTSA. Report on the most current data available
Was the Target Met?	Yes

Table 2: LOWG Data

OLD FOREST RETENTION - CURRENT CONDITION (2016)							
Natural Disturbance Zone (NDZ)	NDU/Merged Biogeoclimatic Units	Unit Label	CFLB Area (ha)	Targets		Current Status	
				% Target from the Order	Target Area (ha)	Current Area (ha)	Current Percentage (%)
Moist Interior	Moist Interior - Mountain ESSFmv 1	E1	18663	41%	7654	10076	54%
Moist Interior	Moist Interior - Plateau SBS dk	E2	26383	17%	4485	11131	42%
Moist Interior	Moist Interior - Plateau SBS mc 2	E3	61243	17%	10412	29126	48%
Moist Interior	Moist Interior - Plateau SBS mk 1	E4	185071	12%	22209	44536	24%
Moist Interior	Moist Interior - Plateau SBS dw 3	E5	205739	12%	24636	71725	35%
Northern Boreal Mountains	Northern Boreal Mountains ESSFmc	E6	109700	37%	40589	92967	85%
Northern Boreal Mountains	Northern Boreal Mountains S'W/B mk	E7	28553	37%	10567	22325	78%
Northern Boreal Mountains	Northern Boreal Mountains SBS mc 2	E8	35857	26%	9323	29708	83%
Omineca	Omineca - Mountain ESSFmv	E9	24321	58%	14454	21215	85%
Omineca	Omineca - Mountain ESSFmc	E10	97439	41%	39950	81182	83%
Omineca	Omineca - Mountain ESSFmv 3	E11	368222	41%	150971	256203	70%
Omineca	Omineca - Valley SBS dk	E12	10840	16%	1734	4865	45%
Omineca	Omineca - Valley ICH mc 1	E13	13113	23%	3016	11882	91%
Omineca	Omineca - Valley B'W/B'Sdk 1	E14	65170	16%	10427	43494	67%
Omineca	Omineca - Valley SBS mc 2	E15	105171	16%	16827	78023	74%
Omineca	Omineca - Valley SBS mk 1	E16	265473	16%	42476	111383	42%
Omineca	Omineca - Valley SBS wk 3	E17	358280	16%	57325	138172	39%

OLD INTERIOR FOREST RETENTION - CURRENT CONDITION (2016)							
Natural Disturbance Zone (NDZ)	NDU/Merged Biogeoclimatic Units	Unit Label	Old Forest Target Area (ha)	Targets		Current Status	
				% Target from the Order	Target Area (ha)	Current Area (ha)	Current Percentage (%)
Moist Interior	Moist Interior - Mountain ESSFmv 1	E1	7654	40%	3062	3717	317%
Moist Interior	Moist Interior - Plateau SBS dk	E2	4485	10%	449	7965	1776%
Moist Interior	Moist Interior - Plateau SBS mc 2	E3	10412	10%	1041	23156	2224%
Moist Interior	Moist Interior - Plateau SBS mk 1	E4	22209	25%	5552	22339	403%
Moist Interior	Moist Interior - Plateau SBS dw 3	E5	24636	25%	6174	42409	687%
Northern Boreal Mountains	Northern Boreal Mountains ESSFmc	E6	40589	40%	16236	31615	564%
Northern Boreal Mountains	Northern Boreal Mountains S/WB mk	E7	10567	40%	4227	21221	502%
Northern Boreal Mountains	Northern Boreal Mountains SBS mc 2	E8	9323	25%	2331	27914	1198%
Omineca	Omineca - Mountain ESSFmv	E9	14454	40%	5782	20891	361%
Omineca	Omineca - Mountain ESSFmc	E10	39950	40%	15980	80323	503%
Omineca	Omineca - Mountain ESSFmv 3	E11	150971	40%	60388	243766	404%
Omineca	Omineca - Valley SBS dk	E12	1734	25%	434	2939	678%
Omineca	Omineca - Valley ICH mc 1	E13	3016	40%	1206	11792	377%
Omineca	Omineca - Valley B/WBsdk 1	E14	10427	25%	2607	39134	1501%
Omineca	Omineca - Valley SBS mc 2	E15	16827	25%	4207	70319	1672%
Omineca	Omineca - Valley SBS mk 1	E16	42476	25%	10619	80115	754%
Omineca	Omineca - Valley SBS wk 3	E17	57325	25%	14331	102170	713%

OLD NON-PINE FOREST RETENTION - CURRENT CONDITION (2016)

Natural Disturbance Zone (NDZ)	NDU/Merged Biogeoclimatic Units	Unit Label	CFLB Area (ha)	Targets		Current Status	
				% Target from the Order	Target Area (ha)	Current Area (ha)	Current Percentage (%)
Moist Interior	Moist Interior - Mountain ESSFmv 1	E1	18663	33%	8943	0	46%
Moist Interior	Moist Interior - Plateau SBS dk	E2	26383	13%	3482	0	36%
Moist Interior	Moist Interior - Plateau SBS mc 2	E3	61243	10%	19326	0	32%
Moist Interior	Moist Interior - Plateau SBS mk 1	E4	185071	4%	31867	0	17%
Moist Interior	Moist Interior - Plateau SBS dw 3	E5	205739	6%	52681	0	26%
Northern Boreal Mountains	Northern Boreal Mountains ESSFmc	E6	109700				
Northern Boreal Mountains	Northern Boreal Mountains S/WB mk	E7	28553				
Northern Boreal Mountains	Northern Boreal Mountains SBS mc 2	E8	35857				
Omineca	Omineca - Mountain ESSFwy	E9	24921				
Omineca	Omineca - Mountain ESSFmc	E10	97439				
Omineca	Omineca - Mountain ESSFmv 3	E11	368221				
Omineca	Omineca - Valley SBS dk	E12	10840	3%	3387	0	37%
Omineca	Omineca - Valley ICH mc 1	E13	13113				
Omineca	Omineca - Valley B/WBsdk 1	E14	65170	10%	28240	0	43%
Omineca	Omineca - Valley SBS mc 2	E15	105171	13%	67172	1	64%
Omineca	Omineca - Valley SBS mk 1	E16	265473	10%	33007	0	35%
Omineca	Omineca - Valley SBS wk 3	E17	358280	12%	123075	0	34%

Indicator Statement	4 - Maintain a variety of young patch sizes in an attempt to approximate natural disturbance
CSA Indicators	1.1.3(b) Forest area by seral stage or age class (young patch)
Target and Variance	Target: As per the Jan. 2004 PG TSA Landscape Biodiversity Objectives Variance: As per the Jan. 2004 PG TSA Landscape Biodiversity Objectives
Methodology of Measurement	LOWG REPORT – The LOWG group produces the official data to analyze performance towards the Old Growth Order for all Districts in the PG TSA. Report on the most current data available. Patch Size is reported only every 5 years. This data is from the 2015 analysis. This data will remain static until the next analysis in apx 2020
Was the Target Met?	No
Table 3: Patch Size Distribution	

		Current Young Forest Patch Size Distribution (ha)				
Natural Disturbance Unit (NDU)	NDU Units	< 50	50-100	100-1000	> 1000	Total Young Forest Area (ha)
Moist Interior - Mountain	E1	38	55	53	0	146
Moist Interior - Plateau	E2, E3, E4, E5	3,980	5,230	15,906	52,775	77,891
Northern Boreal Mountains	E6, E7, E8	0	0	0	0	0
Omineca - Mountain	E9, E10, E11	509	1,236	1,358	501	3,605
Omineca - Valley	E12, E13, E14, E15, E16, E17	5,211	8,501	25,506	11,049	50,267
		Current Young Forest Patch Size Distribution (%)				
Natural Disturbance Unit (NDU)	NDU Units	< 50	50-100	100-1000	> 1000	
Moist Interior - Mountain	E1	26.3%	37.8%	36.0%	0.0%	
Moist Interior - Plateau	E2, E3, E4, E5	5.1%	6.7%	20.4%	67.8%	
Northern Boreal Mountains	E6, E7, E8	0.0%	0.0%	0.0%	0.0%	
Omineca - Mountain	E9, E10, E11	14.1%	34.3%	37.7%	13.9%	
Omineca - Valley	E12, E13, E14, E15, E16, E17	10.4%	16.9%	50.7%	22.0%	
		Trending towards Target	Trending away from Target			
		Target Young Forest Patch Size Distribution (%)				
Natural Disturbance Unit (NDU)	NDU Units	< 50	50-100	100-1000	> 1000	
Moist Interior - Mountain	E1	20%	10%	30%	40%	
Moist Interior - Plateau	E2, E3, E4, E5	5%	5%	20%	70%	
Northern Boreal Mountains	E6, E7, E8	5%	5%	30%	60%	
Omineca - Mountain	E9, E10, E11	20%	10%	30%	40%	
Omineca - Valley	E12, E13, E14, E15, E16, E17	5%	5%	30%	60%	

The LOWG analysis indicates that the higher elevation Mountain NDU's are trending away from targets. This is due to a lack of harvesting in these units. Harvesting efforts in the past decade have been focussed on Mountain Pine Beetle killed stands in the Plateau and Valley NDU's, as is evident by the amount of young forest in these NDU's.

The Omineca – Valley NDU, however, is experiencing a trend away from the target of 60% (22% actual) of patches larger than 1000ha, and away from the target of 30% (51% actual) of openings 100-1000ha in size.

This trend can be attributed to several factors:

- 1 – As dead pine is salvage harvested with strictly regulated pine content targets, forest planning focussed on these types, rather than creating larger openings that would have required harvesting more living spruce types.
- 2 – In some cases, the intensive harvesting required to create large 1000+ ha openings was not feasible due to other stakeholder concerns about concentrating harvest activity in their interest areas. As other values are balanced and managed, it is at the expense of other objectives.

We can expect these trends to change as we transition from pine salvage to regular green harvest planning in the future.

Indicator Statement	5 - Percent of stand structure retained across the DFA in harvested areas						
CSA Indicators	1.1.4(a) Degree of within-stand structural retention (stand-level retention)						
Target and Variance	Target: greater than 7% across the DFA Variance: 0%						
Methodology of Measurement	WIM REPORT – report created that pulls retention levels from SP’s from blocks harvested within the reporting period						
Was the Target Met?	Yes						
<p>Stand level retention consists of wildlife tree patches (WTP), dispersed retention and riparian management areas. Refer to the chief forester’s guidance on landscape and stand level retention. Large retention levels related to some larger openings.</p> <p>Note that the current overall amount of retention in the PGTSA is appx 8.3% For operations since 1997 FREP has calculated a mean of 13.1%, as identified in the current TSR data package.</p> <p>Table4 : Stand Level Retention in Harvested Areas</p> <table border="1"> <thead> <tr> <th>Gross Area Harvested (ha)*</th> <th>Associated Total Retention (ha)</th> <th>Average % Retained **</th> </tr> </thead> <tbody> <tr> <td>5445.4</td> <td>768.8</td> <td>14.12</td> </tr> </tbody> </table>		Gross Area Harvested (ha)*	Associated Total Retention (ha)	Average % Retained **	5445.4	768.8	14.12
Gross Area Harvested (ha)*	Associated Total Retention (ha)	Average % Retained **					
5445.4	768.8	14.12					

Indicator Statement	6 - The number of cut blocks harvested that are not consistent with riparian management commitments.
CSA Indicators	1.1.4(b)Degree of within-stand structural retention (riparian management requirements)
Target and Variance	Target: 0 Variance: 0
Methodology of Measurement	WIM REPORT – report created that pulls the number of riparian features associated with a block for blocks harvested within the reporting period ITS – ITS is reviewed to check for any issues related to Riparian Features
Was the Target Met?	Yes
<p>Harvesting was completed on 46 blocks during the reporting period, with no incidents relating to riparian requirements occurring.</p>	

Indicator Statement	7 - Percent of forest management activities consistent with management strategies (both landscape and stand level) for Species at Risk and/or Species of Management Concern.
CSA Indicators	1.2.1 Degree of habitat protection for selected focal species, including species at risk 1.2.2 Degree of suitable habitat in the long term for selected focal species, including species at risk
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	WIM REPORT – report created that pulls SAR information from SPs for blocks harvested within the reporting period. ITS – ITS was reviewed to check for any issues related to SAR.
Was the Target Met?	Yes
<p>This indicator evaluates the success of implementing specific management strategies for Species of Management Concern, including Species at Risk, as prescribed in operational plans. Appropriate management of these species and their habitat is crucial in ensuring populations of flora and fauna are sustained in the DFA.</p> <p>Canfor must ensure:</p> <ul style="list-style-type: none"> • Key staff are trained in Species at Risk (SAR) identification; • SAR listings are reviewed and management strategies are updated periodically • Strategies are implemented via operational plans. <p>Canfor currently have systems in place to evaluate the consistency of forest operations with operational plans. Tracking this consistency will ensure problems in implementation are identified and corrected in a timely manner.</p> <p>No blocks were harvested that had species at risk identified.</p>	

Indicator Statement	8 - Regeneration will be consistent with provincial regulations and standards for seed and vegetative material use
CSA Indicators	1.2.3 Proportion of regeneration comprised of native species 1.3.1 Genetic diversity (not a core indicator)
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	INFOVIEW REPORT – WIM has created a standard work document to outline how to run the infoview report that will pull this information.
Was the Target Met?	Yes

Table 5 details the areas planted within the DFA in accordance with the Chief Forester's Standards for Seed Use for this reporting period.

Table 5: Compliance with Chief Forester's Standards for Seed Use

Licensee	Total Seedlings Planted	Seedlings Planted in Accordance with Chief Forester's Standards*	Total % DFA**
Canfor – FSJ District	6,593,924	6,593,924	100.0%

* Measured in terms of number of trees purchased ** % = (Area planted in accordance with Chief Forester's Standards for Seed Use / total area planted) X 100

Indicator Statement	9 - Percent of forest management activities consistent with management strategies for protected areas and sites of biological significance as contained in operational plans
CSA Indicators	1.4.1 Proportion of identified sites with implemented management strategies
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	WIM REPORT– WIM has created a summary from the task tab where blocks will have any features of biological significance identified. SP REVIEW – For the blocks identified, the SP is reviewed to specify the management strategies implemented. ITS REVIEW – ITS is checked for any issues related to blocks where management strategies were not met.
Was the Target Met?	Yes

There were no incidents related to not following management strategies for protected areas or sites of biological significance.

Indicator Statement	10 - % of identified Aboriginal forest values, knowledge and uses considered in forestry planning processes
CSA Indicators	1.4.2 Protection of identified sacred and culturally important sites 6.2.1 Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values
Target and Variance	Target: 100% of known forest values, knowledge and uses considered Variance: 0%
Methodology of Measurement	WIM REPORT– WIM has created a report that summarizes SP Cultural Heritage Comments, Activity Comments for Info Sharing and Arch, and any Task Tab comments. These are all reviewed to identify heritage forest values. ITS REVIEW – review ITS for any incidents where the issue is related to identified when management strategies related to heritage values not being achieved
Was the Target Met?	Yes

Trails were removed from blocks and protected with machine free where they could not be avoided. Trail crossings, where required, were constructed and removed to deep the trail bed intact. CMT's were either reserved where possible, or stubbed above the scar where they could not be reserved.

Table 6: Protection of sacred and culturally important sites

	# of Aboriginal forest values, uses & knowledge gathered during planning process	# of Aboriginal forest values, uses & knowledge considered during planning process
Knowledge	0	0
Uses	22	22
Values	0	0
Total	22	22
Total %		100%

Indicator Statement	11 - The regeneration delay, by area, for stands established annually
CSA Indicators	2.1.1 Reforestation success (regeneration delay)
Target and Variance	Target: Regeneration established in 3 years or less Variance: 1
Methodology of Measurement	WIM REPORT– WIM has created a summary for the reporting year that also generates the graph below.
Was the Target Met?	Yes
<p>Table 7: Regeneration Delay</p> <p>Regeneration delay was 1.8 years for 2014 Regeneration delay was 1.72 years for 2015</p>	

Indicator Statement	12 - Percentage of gross forest land base in the DFA converted to non-forested land use through forest management activities
CSA Indicators	2.2.1 (a) Additions and deletions to the forest area
Target and Variance	Target: <3% of the gross land base in the DFA Variance: 0%
Methodology of Measurement	TSR – This indicator will remain static until the next Timber Supply Review happens (every 5 years). This indicator will be updated with the new information at that time (2017)
Was the Target Met?	Yes
<p>The current % of non-forested land in the DFA is 0.74%</p>	

Indicator Statement	13 - Existing areas of non-forested types artificially converted to forest types.
CSA Indicators	2.2.1 (b) Additions and deletions to the forest area
Target and Variance	Target: 0 hectares Variance: 0 hectares
Methodology of Measurement	TSR – This indicator will remain static until the next Timber Supply Review happens (every 5 years). This indicator will be updated with the new information at that time (2017)
Was the Target Met?	Yes
<p>No areas have been converted from non-forested to forested.</p>	

Indicator Statement	14 - Percent of volume harvested compared to allocated harvest level
CSA Indicators	2.2.2 Proportion of the calculated long-term sustainable harvest level that is actually harvested
Target and Variance	Target: 100% over 5 years Variance: as per cut control regulations
Methodology of Measurement	CUT CONTROL DOCUMENT – the legal summary provided from the government is the one used to summarize the performance on that license. The target will be considered met until the 5 year cut is exceeded by the variance, or the 5 year period is completed with an undercut.
Was the Target Met?	Yes

Table 8: Cut Control

Year	2012	2013	2014	2015	2016	Total CC	Total AAC (5yr)	% CC Period
Harvest volume	2,390,121	1	1,061,028	2,329,331		5,780,481	7,988,855	72.4

Indicator Statement	15 - Percent of harvested blocks meeting soil disturbance objectives identified in plans
CSA Indicators	3.1.1 Level of soil disturbance
Target and Variance	Target: 100% of blocks meet soil disturbance objectives Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for issues related to site disturbance on blocks harvested in the reporting year.
Was the Target Met?	Yes
There were no incidents of exceeding soil disturbance identified.	

Indicator Statement	16 - Percent of cut blocks where post-harvest CWD levels are within the targets contained in Plans
CSA Indicators	3.1.2 Level of downed woody debris
Target and Variance	Target: 100% of blocks harvested annually will meet targets Variance: -10%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for issues related to coarse woody debris on blocks harvested in the reporting year.
Was the Target Met?	Yes

There were no non-conformances/compliances related to CWD levels.

The following represents a range of Best Management Practices (BMP's) for CWD that will be implemented where these CWD attributes are achievable in harvest openings:

- To retain standing deciduous trees where operationally feasible; otherwise, left where felled;
- Same as above for Douglas-fir, especially veteran trees;
- To leave non-merchantable stems and under-utilization stems on the block;
- To retain clumps of viable natural regeneration;
- To retain existing CWD in wildlife tree patches and reserve areas will also contribute to the target;
- Use of stub trees as anchors to be retained to varying degrees along riparian areas, machine free zones, and other special features;
- Build loosely constructed piles around stubs. Generally, target 1 pile in every 5 ha, in blocks greater than 15 ha, if there are enough features in the harvest area;
- Radiate some longer pieces of CWD out from the pile(s);
- Retain CWD in clumps;
- Keep longer logs intact to the extent possible; and
- Jackstraw – haphazard orientation.

Objectives and targets specific to CWD will be achieved through the possible application of the following procedures and controls:

- Conduct periodic training for key licensee staff and contractors (in conjunction with pre-works) specific to CWD management and best management practices (including silviculture);
- Adhering to legislative requirements specific to CWD;
- Harvesting pre-works and inspections;
- Conducting implementation monitoring to assess success of implementation of controls and possible opportunities for improvement; and
- Conducting effectiveness monitoring to assess if controls are effective at achieving the desired results.

Indicator Statement	17 - Sensitive watersheds that are above Peak Flow Index targets will have assessment if harvesting planned
CSA Indicators	3.2.1(a) Proportion of watershed or water management areas with recent stand-replacing disturbance
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
No harvesting occurred in sensitive watersheds within the DFA	

Indicator Statement	18 - % of high hazard drainage structures in sensitive watersheds with identified water quality concerns that have mitigation strategies implemented
CSA Indicators	3.2.1(b) Proportion of watershed or water management areas with recent stand-replacing disturbance
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	DISCUSSION WITH OPERATIONS – For blocks harvested in sensitive watersheds in the reporting period, talk to operations supervisors to determine what major structures were installed, and what mitigative strategies were implemented.
Was the Target Met?	Yes
Canfor had no structures installed in sensitive watersheds in the DFA	

Indicator Statement	19 - Percent of road related soil erosion events that introduce sediment into a stream identified in annual road inspections that are addressed.
CSA Indicators	3.2.1(c) Proportion of watershed or water management areas with recent stand-replacing disturbance
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
There were no incidents of sediment introduction into streams identified in ITS.	

Indicator Statement	20 - Percentage of crossing structures planned and installed on fish streams to a reasonable design and sediment control standard (allow for adequate fish passage - dependant on the presence/absence of fish).
CSA Indicators	Indicator 3.2.1(d) Proportion of watershed or water management areas with recent stand-replacing disturbance
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
There were no bridges installed over fish streams in the DFA with issues identified in ITS	

Indicator Statement	21 - Percent of standards units declared annually that meet free growing requirements on or before the free growing date.
CSA Indicators	Indicator 3.2.1(d) Proportion of watershed or water management areas with recent stand-replacing disturbance 4.1.1 Net carbon uptake
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
All blocks met free growing requirements	

Indicator Statement	22 - Conformance with strategies for non-timber benefits identified in Plans.
CSA Indicators	5.1.1 (b) Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA
Target and Variance	Target: 100% Variance: 0%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
<p>There were no incidents related to not following strategies for non-timber benefits.</p> <p>Non-timber benefits can be assessed on a harvest unit specific basis by assessing operational plan commitments designed to reduce any potential impact of the operation on other forest users and stakeholders. These plan commitments could include specific actions to assist ranchers, trappers, guides, resort owners, mineral rights holders, etc. To manage their licensed obligations on shared public forest land. Actions within plans could also involve public expectations related to forest access, visual quality or specific recreational or ecotourism opportunities. Plan commitments could also include actions to manage or protect sites that are culturally important, sacred or spiritual to local Aboriginals.</p>	

Indicator Statement	23 - Total percentage of forest operations that are consistent with a landscape level strategy for the management of recreational, commercial and cultural trails as identified in the DFA.
CSA Indicators	5.1.1 (c) Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
<p>11 blocks had trails in or adjacent to them, with management strategies in place. There were no incidents related to not following strategies for trails in the DFA.</p>	

Indicator Statement	24 - Percentage of roads deactivated that meet the deactivation criteria.
CSA Indicators	5.1.1 (d) Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	ITS REVIEW – ITS was reviewed for related issues on blocks harvested in the reporting year.
Was the Target Met?	Yes
There were no incidents identified related to not meeting deactivation requirements	

Indicator Statement	25 - Investment in local communities
CSA Indicators	5.2.1 Level of investment in initiatives that contribute to community sustainability 6.3.1 (a) Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy
Target and Variance	Target: 5 year rolling average Variance: -20%
Methodology of Measurement	Total Canfor Spend on Vendors with a Ft St James Address as a % of total spending by Plateau operation.
Was the Target Met?	No
This is the first year of reporting for this indicator. Until now, the methodology left us unable to calculate the average spend. For this reporting year, spending on Vendors with addresses in Fort St James DFA was 23.5MM. The total spending for Plateau Operation excluding stumpage was \$139MM. The amount expressed as a percent is $23.5 / 139 = 17\%$	

Indicator Statement	26 – Training in environmental & safety procedures in compliance with company training plans
CSA Indicators	5.2.2 Level of investment in training and skills development
Target and Variance	Target: 100% Variance: -5%
Methodology of Measurement	TRAINING SUMMARY – Normally run by admin staff when scheduling training. Have them run it for staff and note any deficiencies. TRAINING MATRIX – If deficiencies are found, compare against the training matrix found on FMG SharePoint to see if the training is required. AUDIT FINDINGS – training is reviewed annually by the internal and external audits. Any deficiencies would be identified there, and reported here.
Was the Target Met?	Yes
<p>The training requirements for staff were met.</p> <p>723 modules were completed by 33 FMG staff (full time and seasonal).</p> <p>Training records showed that there were 6 courses by 3 staff that were required in the training matrix that were not taken.</p> <p>Result by course: = 723 modules completed/729 modules required = 99.2% complete (staff only)</p>	

Indicator Statement	27 – Level of Direct & Indirect Employment
CSA Indicators	5.2.3 Level of direct and indirect employment
Target and Variance	Target: cut allocation X 1.72/1000m3 (3994) Variance: as per 2.2.2
Methodology of Measurement	CUT CONTROL DOCUMENT – refer to the annual harvest in the A40873 cut control document
Was the Target Met?	Yes
<p>Canfor harvested 2,329,331m3 in 2015</p> <p>Total = 2,329,331 X 1.72/1000 = 4006 jobs</p>	

Indicator Statement	28 – Number of opportunities for First Nations to participate in the forest economy
CSA Indicators	5.2.4 Level of Aboriginal participation in the forest economy
Target and Variance	Target: 6 on a 5 year rolling average Variance: -1
Methodology of Measurement	DISCUSSION WITH OPERATIONS AND SILVICULTURE – Provide ops and silv supervisors with the list below, as it represents some of the longer term agreements. Ask if there are any others to include, or should not be included. VENDOR LIST REVIEW – Review the list of Vendors for Plateau and note the ones that our First Nations.
Was the Target Met?	Yes

Table 9: Aboriginal Contracts

2011/12	2012/13	2013/14	2014/15	2015/16	Average
6	6	6	4	6	5.6

Binche (pile burning with Spectrum)
 Binche (pile burning with Spectrum)
 Tootikoh (brushing)
 Xsu Wii Ax (brushing)
 Connelly Cruisers (brushing)
 Aiken Lake (brushing)

Indicator Statement	29 – Employees will receive appropriate First Nations Awareness Training
CSA Indicators	6.1.1 Evidence of a good understanding of the nature of Aboriginal title and rights
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	TRAINING MATRIX – Check to make sure Canfor staff who are required to take the training has completed it.
Was the Target Met?	Yes

All first nations awareness training needs identified were met.

Indicator Statement	30 – Evidence of best efforts to share interests and plans with Aboriginal communities
CSA Indicators	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
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	ITS REVIEW – Check ITS to see if any blocks had issues with Information Sharing or were harvested without CP's. Typically there will not be any as CP's are not issued unless information sharing has been completed. Report the number of blocks harvested in the reporting period.
Was the Target Met?	Yes
All blocks harvested were info-shared with first nations.	

Indicator Statement	31 - % of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses.
CSA Indicators	6.1.3 Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	ITS REVIEW – Check ITS to see if any blocks had issues with Information Sharing or were harvested without CP's. Typically there will not be any as CP's are not issued unless information sharing has been completed. Report the number of blocks harvested in the reporting period.
Was the Target Met?	Yes
<p>Table 10: Aboriginal Values</p> <p>Of the 46 blocks harvested in this reporting year, there were no instances of harvesting with CP's, or issues with Information Sharing.</p> <p>Management strategies that were incorporated into plans and implemented consisted of trails being removed from blocks and protected with machine free where they could not be avoided. CMT's were targeted for WTP's or identified and stubbed were they could not be removed.</p>	

Indicator Statement	32 - Effective communication and co-operation with non-timber resources users and interested parties that have expressed interest in forest planning
CSA Indicators	6.3.1 (b) Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	INFOVIEW REPORTS – Run an infoview report to summarize all stakeholder communication for the reporting period. Report the number of communications ITS REVIEW – Review ITS to see if there are any stakeholder interest related issues identified.
Was the Target Met?	Yes
Canfor summarizes / tracks communication by division not by DFA. Both PG and Vanderhoof met this indicator that included communications with FSJ.	

Indicator Statement	33 - The number of support opportunities provided in the DFA.
CSA Indicators	6.3.1 (c) Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy
Target and Variance	Target: 6 Variance: -1
Methodology of Measurement	DISCUSSION WITH OPS MANAGER – This will determine the currency of the primary and by-products listed below. Bring the manager the list, to see if anything should be added or removed. NCI SURVEY REPORT – This accounting report will summarize the number of vendors we have paid invoices to, to generate the number of business relations DISCUSSION WITH ADMIN STAFF – To determine the number of community support opportunities. CORPORATE DONATION SUMMARY – This report, obtained from corporate office, will summarize the donations made to the local community.
Was the Target Met?	Yes

Table 11: Donations

Type	#	Details
Cash donation	3	District of Fort St. James Fort St. James Dog Sled Association United Way Campaign
Product donation	8	1 load firewood to Middle River 5 loads firewood to Tachie 2 loads firewood to Binche 2 loads of firewood to Nakazdli 1 road built for Takla 1 load of lumber for Takla 1 load of building supplies for Takla 1 trail built for Takla
Total	11	

Note despite a drop from last year’s cash donations in Fort St James, the donations summary indicated that no requests from Fort St James were denied. All donations that were requested, were awarded.

Indicator Statement	34 - Implementation and maintenance of a certified safety program.
CSA Indicators	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
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	Canfor is SAFE certified. No ongoing verification required. Canfor Contractors are verified prior to preworks. DISCUSSION WITH SAFETY MANAGER – check in with the FMG Safety Manager to ensure the requirements are current.
Was the Target Met?	Yes
Canfor maintained Safe Companies certification.	

Indicator Statement	35 - Percent of PAG meeting evaluations completed during the reporting period that obtain a minimum average acceptability score of 3.
CSA Indicators	6.4.1 Level of participant satisfaction with the public participation process
Target and Variance	Target: 100% Variance: -10%
Methodology of Measurement	PAG FACILITATOR REPORT – This report found on the PGTSA SFMP website will summarize the satisfaction score for PAG meetings. Summarize for the reporting period.
Was the Target Met?	Yes
The average score from meetings in this period was 4.1	

Indicator Statement	36 - Number of educational opportunities for information/training that are delivered to the PAG.
CSA Indicators	6.4.2 Evidence of efforts to promote capacity development and meaningful participation in general
Target and Variance	Target: =>1 Variance: 0%
Methodology of Measurement	PAG MEETING MINUTES– These documents found on the PGTSA SFMP website will summarize the meeting minutes. Tally the number of training sessions given to the PAG for the reporting period.
Was the Target Met?	Yes
(4) Migratory Birds, Corase Woody Debris, Silviculture and Brush and Canfor Corporate Donations presentations.	

Indicator Statement	37 - The number of educational opportunities provided										
CSA Indicators	6.5.1 Number of people reached through educational outreach										
Target and Variance	Target: 4 Variance: -1										
Methodology of Measurement	DISCUSS WITH PERMITTING COORDINATOR – Verify any staff involvement with community educational initiatives. DISCUSS WITH MILL SUPERINTENDENTS – Summarize any mill tours given to the community.										
Was the Target Met?	Yes										
<p>Target met for 2016</p> <p>While the ‘Walk in the Woods’ and ‘COFI NRM Camp’ were not held in Fort St James specifically, the community was invited and some school kids did attend.</p> <p>Table 12: Educational Opportunities</p> <table border="1"> <thead> <tr> <th>Types of Opportunities</th> <th># of Opportunities</th> </tr> </thead> <tbody> <tr> <td>Items identified in 36 above</td> <td>4</td> </tr> <tr> <td>Drop it and Drive – High School</td> <td>1</td> </tr> <tr> <td>Canadian Institute of Forestry’s “Walk in the Woods”</td> <td>1</td> </tr> <tr> <td>Council of Forestry Industries Natural Resources Management Camp</td> <td>1</td> </tr> </tbody> </table>		Types of Opportunities	# of Opportunities	Items identified in 36 above	4	Drop it and Drive – High School	1	Canadian Institute of Forestry’s “Walk in the Woods”	1	Council of Forestry Industries Natural Resources Management Camp	1
Types of Opportunities	# of Opportunities										
Items identified in 36 above	4										
Drop it and Drive – High School	1										
Canadian Institute of Forestry’s “Walk in the Woods”	1										
Council of Forestry Industries Natural Resources Management Camp	1										

Indicator Statement	38 - SFM Annual report made available to the public.
CSA Indicators	6.5.2 SFM Annual report made available to the public
Target and Variance	Target: SFM monitoring report available to public annually via the web. Variance: None
Methodology of Measurement	CANFOR EXTERNAL WEBSITE – Check to ensure reports are posted as required.
Was the Target Met?	Yes
<p>The 2014-2015 annual report is posted on the website. This annual report will be posted once reviewed by the PAG.</p>	