Prince George

Sustainable Forest Management Plan

2010/11 Annual Report

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1.0 Introduction

This is the 2010/11 Annual Report for the Prince George Sustainable Forest Management Plan (SFMP), covering the reporting period of April 1, 2010 to March 31, 2011. The SFMP is a result of the combined efforts of one major licensee and British Columbia Timber Sales (BCTS) to achieve and maintain Canadian Standards Association (CSA) certification to the CSA Z809-02 standard[1]. The current signatories to the plan are:

1. BC Timber Sales, Prince George Business Area
2. Canadian Forest Products Ltd., Prince George Operations

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

One of the public participation strategies suggested in the CSA SFM Standard is the formation of a local group of interested and affected members of the public to provide input on an ongoing basis. This strategy provides the base for the formation of a Public Advisory Group (PAG) whose purpose is to achieve CSA standard's public participation requirements. The Licensees[2] / BCTS established a PAG in the fall of 2004 to assist with the development of the SFMP. A wide range of public sector interest groups, from within the Prince George Forest District, were invited to participate in the SFM process through the PAG. In all, fifty members of the public including First Nation peoples attended at least one PAG meeting and/or received the agenda and minutes for each PAG meeting. After completing the Terms of Reference in December 2004, the PAG established the SFMP Criteria and Elements Performance Matrix with the SFMP being completed in September of 2005.

It is important to note that the Prince George 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 Prince George Defined Forest Area (DFA). The DFA is the Crown Forest land base within the Prince George Forest District and the traditional operating areas of the signatory licensees and BCTS, 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 Prince George 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 Prince George Sustainable Forest Management Plan document.

1.1 List of Acronyms

Below is a list of common acronyms used throughout this annual report. For those wishing a more comprehensive list should consult the 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
LOWG – Landscape Objectives Working Group
MoFR – Ministry of Forest and Range
NDU – Natural Disturbance Unit

[1] Carrier Lumber Ltd. announced its departure from the CSA SFM certification process in early October 2010.
[2] Lakeland Mills and Winton Global were also part of the original Licensee Steering Committee, until their departure from the CSA SFM certification process in June 2009

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

Of the 49 indicators listed in Table 1, 41 indicators were met within the prescribed variances, 2 are pending, and 6 indicators were not met within the prescribed variances. For each off-target indicator, a corrective and preventative action plan is included in the indicator discussion. Please note that due to a history of revision and amalgamation of some indicators, some indicator numbers no longer exist (ie. #9,10,11,12,13,15,16,17 etc.).

Table 1: Summary of Indicator Status, April 1, 2010 to March 31, 2011

Indicator Number	CSA CE& VOIT references	Revisions to indicator in 2010/11	Indicator Description	Target Met	Pending	Target Not Met
1	1.1A.a, 2.1A.a	None	Old forest by Natural Disturbance Unit			X
2	1.1A.a, 2.1.A.a	None	Old interior forest	X		
3	1.1A.a, 2.1.A.a	None	Young patch size distribution			X
4	1.1A.a, 1.3.A.a, 2.2.A.a	None	Landscape level biodiversity reserves	X		
5	1.1A.a, 1.3.A.b	None	Stand level retention – average and minimum			X
6	1.1A.a, 2.1.A.a	None	Wet Trench and Wet Mountain young patch size		X	
7	1.1.A.a	None	Coarse Woody Debris Levels	X		
8	1.2.A.a, 2.2.A.a	None	Species Diversity and Ecosystem Productivity: ▪ Caribou UWR ▪ Mule deer UWR ▪ SAR notices ▪ Riparian reserves	X		
14	1.3.A.b	None	Chief Forester's Standards for Seed Use	X		
18	1.4.B.a	None	Harvesting within landscape level reserves.	X		
19	2.1.A.a	None	Areas planted consistent with operational plans	X		
20	3.1.A.a	None	Soil conservation standards	X		
21	3.1.A.a, 4.2.A.a	None	Cutblock area occupied by permanent access structures	X		
22	3.1.A.a	None	Terrain management	X		
23	3.1.A.a	Jan/10 – variance revised	Legally reportable spills	X		
24	3.2.A.a	None	Riparian area conservation	X		
25	3.2.A.a	None	Stream crossing management	X		
26	3.2.A.a	None	Mitigating sedimentation	X		
27	3.2.A.a	None	Maintain of natural stream flow	X		
28	3.2.A.a, 4.1.A.a, 5.1.A.a	None	Forest Continuity	X		
30	4.1.A.a	None	Free Growing requirements	X		
31	4.1.A.a, 5.1.A.a	None	Stand Damaging agents	X		
32	4.2.A.a	None	Forest Land conversion	X		
33	5.1.A.a	None	Cut level volumes		X	
34	5.1.A.a	Jan/10 – target revised	Forestry related industry fires	X		

Indicator Number	CSA CE& VOIT references	Revisions to indicator in 2010/11	Indicator Description	Target Met	Pending	Target Not Met
35	5.1.A.b	None	Non-Timber Benefits: ▪ Visuals ▪ Cultural Heritage ▪ Range ▪ Riparian (Indicator 24) ▪ Recreation ▪ Lakeshore	X		
36	5.1.A.b	None	First Order wood products	X		
37	5.1.A.b, 5.2.A.a	None	Volume advertised through competitive bid	X		
38	5.1.A.b	None	Public and Stakeholder input	X		
39	5.1.A.c	None	Viewing of access plans, operational plans and SFMPs	X		
40	5.1.A.c	None	Response to written public inquiries	X		
41	5.1.A.c	None	Communication Strategies	X		
42	5.2.A.a	None	Support of North Central Interior suppliers and contractors	X		
43	5.3.A.a	None	Payment of taxes	X		
44	5.3.A.a	None	Stumpage paid to Government	X		
45	5.3.A.a	None	Lost time accidents	X		
46	6.1.A.a	None	Legally recognized treaty areas	X		
47	6.1.A.a	None	FSP referral to First Nations	X		
48	6.1.A.a	None	PMP Referrals to First Nation	X		
49	6.2.A.a	None	Cultural heritage requirements	X		
50	6.2.A.a	None	Heritage Conservation Act	X		
51	6.3.A.a	None	PAG satisfaction with public participation	X		
52	6.3.A.a	None	PAG Terms of Reference	X		
53	6.3.A.a	None	Number of PAG meetings	X		
54	6.3.A.a	None	Public sector participation in the PAG			X
55	6.4.A.a	None	PAG satisfaction with information presented for decision making	X		
56	3.2.A.a	None	Active watershed risk evaluation	X		
57	3.2.A.a	None	Watersheds assessed by qualified professional			X
58	3.2.A.a	None	Operations consistent with professional watershed recommendations			X
59	1.2.A.a, 1.4.A.a	None	Compliance with Species at Risk and Sites of Biological Importance management strategies	X		
			Totals	**41**	**2**	**6**

1.3 SFM Performance Reporting

This annual report will describe the success of the licensee and BCTS in meeting the indicator targets over the DFA. The report will be available to the public and will allow for full disclosure of forest management activities, successes, and failures. Each signatory to the SFMP has reported individual performance within its traditional operating areas as well as performance that contributes to shared indicators and targets across the plan area. Each signatory to the plan is committed to work together to fulfill the PG SFMP commitments including data collection and monitoring, participation in public processes, producing public reports, and continuous improvement.

Non-replaceable Forest License A70174

Within the BCTS traditional operating area, a previous signatory to this SFMP (Carrier Lumber Ltd.) operated under a non-replaceable forest license (FLA70174). This license is not included in the 2010/11 annual report as the license has expired, and Carrier Lumber Ltd. is no longer signatory to this plan.

2.0 SFM Indicators, Targets and Strategies

Indicator 1. *(1.1.A.a | 2.1.A.a)* Old Forest by Natural Disturbance Unit

Indicator Statement	Target and Variance
The amount of old forest by NDU/ merged BEC within the DFA	Target: As per the "Landscape Biodiversity Objectives for the PG TSA" Variance: 0%

Was the Target Met? *No*

This indicator is intended to quantify, at a point in time, the amount of landscape occupied by "old forests". Maintenance of old forest stands is crucial to forest management for the conservation of landscape ecosystem biodiversity. The Mountain Pine Beetle epidemic presents its own challenges, as older pine-leading stands are the most susceptible to infestation.

The Landscape Objectives Working Group (LOWG), which has representation from the Ministry of Agriculture and Lands - Integrated Land Management Bureau (ILMB), MoFR (Ministry of Forest and Range) and timber licensees, has developed Landscape Biodiversity Objectives and Old Forest Retention requirements for the Prince George Timber Supply Area (PG TSA), which includes the Prince George Forest District.
The current status of Old Forest within the DFA is shown in Table 2 below.

In March of 2009 the Licensee LOWG proceeded with the 2009 analysis using the newest Vegetative Resource Inventory (VRI) data. The new VRI (projected to Jan 1, 2007) utilized in this analysis is the same data set used in the Timber Supply Review IV (TSR IV) for the Prince George Timber Supply Area. The Crown Forest Land Base (CFLB) for the 2011 analysis was based on the new definition of the CFLB from the TSR IV, as released in October 2010.

Table 2: Old Forest by Natural Disturbance Unit Merged BEC

Natural Disturbance Unit (NDU)	NDU / Merged BEC[3]	Total CFLB (ha)	Old Forest Target		Current Status			
			%	Hectares	Current Area (ha)	% of CFLB	Surplus / Deficit	Licensee Action
Boreal Foothills	A1	7,031	33%	2,320	5,484	78%	3,163	**communicate**
McGregor	A2	15,782	26%	4,103	8,557	54%	4,454	**communicate**
McGregor	A3	69,757	12%	8,371	26,082	37%	17,711	**no action**
McGregor	A4	227,723	26%	59,208	65,920	29%	6,712	**no action**
Moist Interior	A5	14,085	29%	4,085	3,997	28%	-88	**lockdown**
Moist Interior	A6	16,388	29%	4,752	7,295	45%	2,542	**communicate**
Moist Interior	A7	4,268	17%	726	1,701	40%	975	**communicate**
Moist Interior	A8	9,306	12%	1,117	2,696	29%	1,580	**communicate**
Moist Interior	A9	34,157	12%	4,099	5,658	17%	1,559	**communicate**
Moist Interior	A10	40,565	17%	6,896	14,544	36%	7,648	**no action**
Moist Interior	A11	129,857	12%	15,583	32,533	25%	16,950	**no action**
Moist Interior	A12	161,537	12%	19,384	39,566	24%	20,182	**no action**
Moist Interior	A13	361,247	12%	43,350	101,834	28%	58,485	**no action**
Wet Mountain	A14	124,797	50%	62,398	104,841	84%	42,444	**no action**
Wet Mountain	A15	16,375	84%	13,755	12,024	73%	-1,731	**lockdown**
Wet Mountain	A16	35,545	26%	9,242	15,361	43%	6,120	**no action**
Wet Mountain	A17	120,107	50%	60,053	87,041	72%	26,989	**no action**
Wet Trench	A18	2,213	80%	1,770	1,785	81%	15	**communicate**
Wet Trench	A19	63,628	48%	30,542	52,821	83%	22,280	**no action**
Wet Trench	A20	97,571	80%	78,056	84,874	87%	6,817	**no action**
Wet Trench	A21	116,871	48%	56,098	70,798	61%	14,700	**no action**
Wet Trench	A22	28,287	53%	14,992	19,465	69%	4,473	**communicate**
Wet Trench	A23	151,965	53%	80,541	96,892	64%	16,351	**no action**
Wet Trench	A24	135,470	30%	40,641	39,667	29%	-974	**lockdown**
Wet Trench	A25	159,117	46%	73,194	76,379	48%	3,185	**communicate**
Totals		**2,143,646**		**695,276**	**977,814**		**282,541**	

[3] See Appendix 1 for BEC description and NDU / Merged BEC Maps

NDU's in deficit: Moist Interior, Wet Mountain and Wet Trench

As a result of the October 2011 LOWG analysis, A5, A15 & A24 are identified as having a deficit of Old Forest. Recruitment strategies have been developed by the Licensee LOWG, however they have not been submitted for government approval; approval must be obtained before any further harvest activities are conducted.

An approved recruitment strategy for A24 has been in place since October 2005. As the 2005/06 PG SFMP Annual Report stated an Old Forest deficit in A24 of 1989 ha, the recruitment strategy has been effective in reducing the deficit by over 1000 ha within a period of approximately four years.

Thresholds for Action in Other NDU's

The following definitions are paraphrased from the LLOWG Memorandum of Understanding:

1. If a **large amount** of surplus old and interior forest exists within the NDU/BEC (200% surplus or >5000 ha surplus), licensees can proceed with planned and new development with no communication or interaction required with other signatory licensees.
2. If a **moderate amount** of surplus old and interior forest exists within the NDU/BEC (150% surplus or 1000-5000 ha), licensees can proceed with planned and new development with little communication or interaction expected. However, if a large amount of new development is planned prior to the next updating of LOWG data, the licensee will query other licensees in the unit to establish whether the combination of harvest activities will result in a deficit, and determine a means to resolve the deficiency.
3. If only a **small amount** of surplus old and interior forest exists within the NDU/BEC (<150% or <1000 ha), licensees may only proceed with planned development (that which has already been included in the most recent LOWG analysis). If a deficiency was forecast due to new harvest planning, the proponent would either resolve the deficiency with other signatory licensees in the unit, or develop and seek approval from the applicable Ministry for a recruitment strategy.
4. Where a **deficiency** in old or interior forests exists within the NDU/BEC, licensees will not apply for new cutting permits until the deficiency is resolved, or a recruitment strategy is approved for the unit.

Old Forest Quality

Licensees and BCTS have implemented the Old Forest Quality predictive model as a tool in operational planning. They will annually monitor and report out on the area of 'Good through Best Old Forest Quality' by NDU merged BEC in the Prince George Forest District. See Table 3 for description of the current Old Forest Quality Distribution across the merged BEC NDU's (the analysis was completed in November 2008 and presented to the PAG in January 2009).

Management Strategy for Old Forest Quality

A. Implement the old forest quality model as a tool in operational planning.

B. Annually monitor and report out on the area of Medium, High and Very High Quality Old Forest by NDU merged BEC in the Prince George Forest District.

C. Revisit the model periodically when improved inventory data sets are available specifically to update intrinsic indicators and rankings.

Table 3: March 2008 depletions - Manning Cooper Old Forest Quality Rankings overlayed with LOWG VRI resultant

Natural Disturbance Unit	CFLB from LOWG DATA	Total Crown Forest Land Base	Old Forest Q1 - Good		Old Forest Q2		Old Forest Q3		Old Forest Q4		Old Forest Q5		Old Forest Q6 - Best		Old Forest Quality Total Area
			ha	%	ha	%	ha	%	ha	%	ha	%	ha	%	
A1	7,254.81	7,232	0	0.0	0	0.0	21	0.5	229	5.9	1,771	45.3	1,885	48.3	3,906
A2	10,348.74	10,318	0	0.0	64	1.2	1,309	23.7	2,538	45.9	1,389	25.1	226	4.1	5,526
A3	71,778.90	70,541	8	0.0	1,796	5.9	13,959	46.0	12,040	39.7	2,488	8.2	36	0.1	30,327
A4	219,256.43	215,177	49	0.1	5,165	7.1	35,477	48.8	24,989	34.4	6,075	8.4	958	1.3	72,712
A5	12,396.12	12,358	0	0.0	70	0.9	1,116	14.0	2,834	35.7	2,893	36.4	1,034	13.0	7,947
A6	16,417.38	16,384	0	0.0	13	0.1	277	2.5	1,997	18.1	3,899	35.3	4,854	44.0	11,040
A7	5,928.19	5,589	0	0.0	390	19.5	1,138	57.0	450	22.6	17	0.9	0	0.0	1,995
A8	9,145.21	9,006	0	0.0	48	1.0	1,188	23.4	3,370	66.4	466	9.2	0	0.0	5,072
A9	33,442.88	32,958	0	0.0	1,217	13.5	5,320	58.9	1,921	21.3	561	6.2	15	0.2	9,034
A10	39,087.69	38,768	20	0.1	1,002	6.1	6,355	38.5	6,250	37.9	2,291	13.9	588	3.6	16,506
A11	128,566.27	120,736	159	0.3	13,404	21.6	39,955	64.3	8,241	13.3	332	0.5	0	0.0	62,092
A12	179,031.42	176,283	119	0.2	8,849	13.7	38,865	60.0	15,011	23.3	1,470	2.3	334	0.5	64,449
A13	370,589.29	366,110	178	0.1	13,835	10.1	61,599	44.9	49,246	35.9	12,267	8.9	169	0.1	137,294
A14	154,009.15	153,405	0	0.0	2,133	1.6	21,357	16.1	47,635	35.8	39,300	29.6	22,552	17.0	132,976
A15	27,832.47	27,953	0	0.0	180	0.7	4,519	18.6	10,273	42.4	6,087	25.1	3,191	13.2	24,251
A16	33,913.61	33,667	0	0.0	785	5.4	9,005	61.7	4,306	29.5	392	2.7	103	0.7	14,591
A17	114,672.76	114,624	0	0.0	1,473	1.7	21,244	25.0	32,901	38.8	23,886	28.2	5,322	6.3	84,824
A18	33,996.81	33,993	0	0.0	92	0.3	1,694	5.2	7,238	23.5	14,322	46.5	7,577	24.6	30,801
A19	65,010.56	98,350	7	0.0	183	0.2	3,904	4.4	16,212	18.3	40,796	46.1	27,401	31.0	88,503
A20	98,711.64	98,756	0	0.0	45	0.0	2,322	2.6	12,388	13.8	34,817	38.7	40,345	44.9	89,917
A21	114,752.45	114,581	0	0.0	40	0.1	1,483	2.1	10,559	14.7	26,183	36.5	33,456	46.6	71,722
A22	27,175.65	27,562	8	0.0	1,278	6.4	7,355	37.0	8,880	44.7	1,991	10.0	369	1.9	19,880
A23	145,660.30	145,433	27	0.0	2,171	2.2	25,909	26.4	40,351	41.2	23,774	24.3	5,804	5.9	98,037
A24	131,801.62	131,625	6	0.0	2,752	6.4	16,994	39.3	16,749	38.8	5,655	13.1	1,048	2.4	43,205
A25	152,701.09	151,792	8	0.0	1,750	2.3	19,114	25.0	31,458	41.2	19,854	25.8	4,323	5.7	76,306
AAT		372	0	0.0	0	0.0	18	7.2	102	40.3	120	47.4	13	5.1	254
AXX		5,959	0	0.0	104	7.9	612	46.0	531	39.9	83	6.2	0	0.0	1,331
	2,203,481.43	2,219,530													1,204,498

Due to changes in Forest Investment Account funding eligibility, only tabular accounts of old forest retention and old interior forest were included in the products from the contract for LLOWG analysis. Therefore an up-to-date summary was not possible for this reporting period.

Indicator 2. *(1.1.A.a.ii | 2.1.A.a.ii)* Old Interior Forest

Indicator Statement	Target and Variance
The amount of old interior forest by NDU/ merged BEC within the DFA.	Target: As per the "Landscape Biodiversity Objectives for the PG TSA" Variance: 0%

Was the Target Met? *Yes*

Old interior forest conditions are achieved when the impact of adjacent openings no longer influences environmental conditions within the stand. Many species are dependent upon old interior forest conditions to meet their habitat requirements.

The LOWG, which has representation from ILMB, MoFR and timber licensees, aided ILMB in the development of landscape biodiversity objectives for old interior forest conditions for the Northern Interior Forest Region, which included the Prince George DFA. Old interior forest retention objectives have been established for each Natural Disturbance Unit (NDU) that occurs within the Prince George DFA.

The current status of the old interior forest retention objectives within the DFA is shown in Table 4 below. As noted in Indicator 1, the 2011 results utilized the Crown Forest Land Base as defined in the TSR IV data package.

Table 4: Old Interior Forest by Natural Disturbance Unit merged BEC

Natural Disturbance Unit (NDU)	NDU / Merged BEC	Old Interior Forest Threshold (ha)	Old Interior Forest Threshold		Current Status			
			%	ha	ha	%	Surplus / Deficit	Licensee Action
Boreal Foothills	A1	2,320	40%	928	5,484	236%	4,556	No action

Natural Disturbance Unit (NDU)	NDU / Merged BEC	Old Interior Forest Threshold (ha)	Old Interior Forest Threshold		Current Status			
			%	ha	ha	%	Surplus / Deficit	Licensee Action
McGregor	A2	4,103	40%	1,641	7,437	181%	5,796	No action
McGregor	A3	8,371	25%	2,093	10,042	120%	7,950	No action
McGregor	A4	59,208	10%	5,921	32,204	54%	26,283	No action
Moist Interior	A5	4,085	40%	1,634	1,851	45%	217	communicate
Moist Interior	A6	4,752	40%	1,901	4,135	87%	2,234	communicate
Moist Interior	A7	726	10%	73	1,396	192%	1,323	communicate
Moist Interior	A8	1,117	25%	279	1,270	114%	991	communicate
Moist Interior	A9	4,099	10%	410	2,422	59%	2,012	communicate
Moist Interior	A10	6,896	25%	1,724	7,333	106%	5,609	No action
Moist Interior	A11	15,583	25%	3,896	11,793	76%	7,897	No action
Moist Interior	A12	19,384	10%	1,938	18,479	95%	16,540	No action
Moist Interior	A13	43,350	25%	10,837	48,120	111%	37,283	No action
Wet Mountain	A14	62,398	40%	24,959	97,239	156%	72,280	No action
Wet Mountain	A15	13,755	40%	5,502	11,571	84%	6,069	No action
Wet Mountain	A16	9,242	25%	2,310	10,479	113%	8,169	No action
Wet Mountain	A17	60,053	25%	15,013	66,997	112%	51,985	No action
Wet Trench	A18	1,770	40%	708	1,616	91%	908	communicate
Wet Trench	A19	30,542	40%	12,217	48,235	158%	36,019	No action
Wet Trench	A20	78,056	40%	31,223	77,707	100%	46,485	No action
Wet Trench	A21	56,098	40%	22,439	50,342	90%	27,903	No action
Wet Trench	A22	14,992	40%	5,997	11,669	78%	5,672	No action
Wet Trench	A23	80,541	40%	32,217	70,536	88%	38,319	No action
Wet Trench	A24	40,641	10%	4,064	16,159	40%	12,095	No action
Wet Trench	A25	73,194	25%	18,298	46,633	64%	28,335	No action
Totals		**695,276**		**208,222**	**661,150**		**452,929**	

Indicator Discussion: The results from the March 31, 2011 data summary for the PG TSA confirm that NDU Merged BEC zones A5,6,7,8,9,18 still contain surplus interior old forest, however, as per the PG LLOWG MOU those units containing <3000ha must be placed in a watch – communicate status. Therefore any planned harvest in those units must be communicated to the adjacent licensees and the LLOWG data run for the units to measure the effect on the surplus numbers indicated above.

Indicator 3. *(1.1A.a | 2.1.A.a)* Young Patch Size Distribution

Indicator Statement	Target and Variance
The young forest patch size distribution by NDU within the DFA	Target: As per the "Landscape Biodiversity Objectives for the PG TSA" Variance: +/- 15%

Was the Target Met? *No*

A patch is a forest unit with identifiable boundaries and vegetation different from its surroundings. Often patches are even-aged forests established from natural disturbances such as fire, wind or pest outbreaks, or harvesting. Natural disturbances maintain plant and animal diversity over time and space by creating structural complexity within stands, and by influencing the size distribution, edge characteristics, and dispersion of stands across the landscape (Zackrisson, 1977).

Table 5: Young Patch Distribution, as of March 31st 2011

PATCH SIZE	Current Status as of March 31st 2010					Future Patch Size Trending
	< 50	50-100	100 - 1000	> 1000	Total	
Moist Interior Plateau Target	**5%**	**5%**	**20%**	**70.0%**	**100%**	Target larger patches
PG (ha)	11,641.9	13,941.3	27,615.3	140,976.8		
PG (%)	6.0%	7.0%	14.0%	73.0%	100.0%	

PATCH SIZE	Current Status as of March 31st 2010					Future Patch Size Trending
	< 50	50-100	100 - 1000	> 1000	Total	
Moist Interior Mtn Target	**20%**	**10%**	**30%**	**40%**	**100%**	Trend toward small / larger / large patches
PG (ha)	590.5	1,376.6	1,277.6	1,301.2	4,545.9	
PG (%)	13.0%	30.0%	28.0%	29.0%	100.0%	
McGregor Plateau Target	**10%**	**5%**	**45%**	**40%**	**100%**	Trend toward larger / Large patches
PG (ha)	4,919.1	8,902.6	15,268.5	15,714.2		
PG (%)	11.0%	20.0%	34.0%	35.0%	100%	
Wet Trench Valley Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend toward small / larger / large patches
PG (ha)	7,766.0	11,472.3	19,751.0	3,162.6		
PG (%)	18.0%	27.0%	47.0%	8.0%	100%	
Wet Trench Mtn Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend toward small / larger patches
8463)PG (ha)	2,409.6	4,917.0	5,934.3	2,403.0		
PG (%)	15.0%	31.0%	38.0%	15.0%	100%	
Wet Mtn Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend toward small / larger / large patches
PG (ha)	2,832.6	6,928.6	6,998.7	1,294.1		
PG (%)	16.0%	38.0%	39.0%	7.0%	100%	

According to the 5 year patch analysis results delivered in 2011, 1 NDU within the PG district does not meet the trending rules as agreed to by thee LLOWG under the rules of the PG L.B.O. Because the Wet Trench NDU does not show a proper trending toward the targets of the PG order the unit requires a rationale to be drafted and submitted to PG District Manager to address the issue and propose a solution moving into the next 5 year period. The following rationale has been developed by the LLOWG for the Wet Mountain NDU:

The rationale for not trending towards the target within the Omineca Mountain NDU can be broken into the following categories:

Harvest Activity:

Harvesting within the Wet Mountain NDU was limited to the first four years (2004 to 2007), after which no further harvesting took place. The primary reason for this, was that during these initial years, mountain pine salvage was taking place elsewhere in the Timber Supply Area. During 2007, harvesting within this area stopped as most of the remaining volume is non pine species. As harvesting within the TSA was focused on mountain pine beetle (MPB) salvage, and MPB salvage operations within the Wet Mountain NDU were limited, the ability to manage for the Order's patch size objective was in itself very limited.

Conflicting Management Objectives:

As noted above, with the current harvest priorities focused on the mountain pine beetle killed timber, managing for patch size has, to a certain degree, become a conflicting management objective.

When taking into consideration the multitude of constraining objectives (i.e. visual management, species at risk and midterm timber supplies), the ability to manage for patch size becomes increasingly difficult. In addition, it has been a major focus for Government as well as Licensees to salvage as much MPB killed timber as possible. In doing this, patch distribution becomes more of a function of species distribution. With the recently announced Annual Allowable Cut (AAC) partition within the PGTSA (January 2011), the licensees' ability to manage for the patch size objective has become even more of a challenge.

Strategy to Achieve Objective

As already noted, with the recent partition announcemenmt within the PGTSA, impacts to patch size will mainly be a result of natural occurances (i.e. young patches aging and moving out of the "young" category). Therefore, trends within this NDU may not be influenced by harvesting activities until late in the next reporting period (2010–2015) or quite possibly not until the reporting period after that (2015–2020) when harvesting switches back to primarily green timber.

Previous patch results

Table 5: Young Patch Distribution, as of March 31st 2010

PATCH SIZE	Current Status as of March 31st 2010					Future Patch Size Trending
	< 50	50-100	100 - 1000	> 1000	Total	
Moist Interior Plateau Target	**5%**	**5%**	**20%**	**70.0%**	**100%**	Trend towards larger blocks (100 – 1000 ha) in order to reduce the percentage of smaller blocks.
PG (ha)	11,641.9	13,941.3	27,615.3	140,976.8	194,175.3	
PG (%)	6%	7.2%	14.2%	72.6%	100.0%	
Moist Interior Mtn Target	**20%**	**10%**	**30%**	**40%**	**100%**	Trend towards smaller (<50 ha) or large blocks (>1000 ha) in order to reduce the percentage of larger blocks. *(Note that the targets contained in Table 8 of the 2010 PG SFM Plan are incorrectly stated; and that this table lists the correct targets as per the Orde)*
PG (ha)	590.5	1,376.6	1,277.6	1,301.2	4,545.9	
PG (%)	13.0%	30.3%	28.1%	28.6%	100.0%	
McGregor Plateau Target	**10%**	**5%**	**45%**	**40%**	**100%**	Trend towards the larger blocks (100 – 1000 ha).
PG (ha)	4,919.1	8,902.6	15,268.5	15,714.2	44804.4	
PG (%)	11.0%	19.9%	34.1%	35.1%	100%	
Wet Trench Valley Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend towards the small (<50 ha) and larger blocks (100 – 1000 ha) and away from the largest blocks.
PG (ha)	7,766.0	11,472.3	19,751.0	3,162.6	42,151.9	
PG (%)	18.4%	27.2%	46.9%	7.5%	100%	
Wet Trench Mtn Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend towards the small (<50 ha) and larger blocks (100 – 1000 ha) and away from mid size and the largest blocks.
8463)PG (ha)	2,409.6	4,917.0	5,934.3	2,403.0	15,663.9	
PG (%)	15.4%	31.4%	37.9%	15.3%	100%	
Wet Mtn Target	**20%**	**10%**	**60%**	**10%**	**100%**	Trend towards the small (<50 ha), larger (100 – 1000 ha) and largest blocks (>1000 ha) and away from the mid – size (50 – 100 ha) blocks.
PG (ha)	2,832.6	6,928.6	6,998.7	1,294.1	18,054	
PG (%)	15.7%	38.4%	38.8%	7.2%	100%	

Indicator Discussion: As harvesting continues, it is anticipated that the distribution of patches will mimic the natural range of patch size distribution. While current trends will move most patch size distributions toward targets, others will be further from achieving objectives due to previous harvesting patterns and the effects of the massive infestation of mountain pine beetle. This indicator has a five-year measurement criterion (2005-2010) as established in the PG TSA LOWG Reporting Protocol.

Indicator 4. *(1.1.A.a | 1.3.A.a | 2.2.A.a)* Landscape Level Biodiversity Reserves

Indicator Statement	Target and Variance
The amount of landscape level biodiversity reserves within the DFA	Target: Hectares set aside to maintain natural forest conditions across DFA as per the latest Prince George Timber Supply Review Variance: -1%

Was the Target Met? *Yes*

There are two levels of Biodiversity Reserves: **Stand level**, which includes mapped wildlife tree patches and riparian reserve areas, and **landscape level**, which includes provincial parks and all other large reserve areas that are removed from the timber harvesting land base. This indicator illustrates the amount of productive forest put into landscape level biodiversity reserves. The Government of BC currently classifies landscape-level retention through higher level and strategic planning initiatives. Some examples of this include Crown Land Plans and the Parks and Protected Areas Strategy.

The current status is shown for the operating year of April 1, 2010 to March 31, 2011 in the following table and has not changed from the previous reporting period.

Table 6: The Amount of Landscape Level Biodiversity Reserves within the DFA

Landscape Reserve		Total Reserve Area in the PG District (ha)
Protected Areas & Parks		256,295
Old Growth Management Areas	**Dome**	31,780
	Slim	56,310
	Humbug	35,487
	ICH (Ancient Forest) Trail	57
Herrick Old Growth Reserve		4,481
Crown Land Plan Reserves		45,324
Caribou High		94,468
Total		**524,202**

Source: 2001 Timber Supply Review

Indicator 5. *(1.1.A.a | 1.3.A.b)* Stand Level Retention

Indicator Statement	Target and Variance
The average percentage of stand level retention in harvested areas within the DFA	Target: >7% annually within the DFA, with a minimum of 3.5% by block and no maximum %. Variance: 0%
Was the target met? No	
BCTS - What happened? BCTS – with 3.2% retention, one block of a two-block TSL did not meet the minimum 3.5%.	
BCTS - Root cause: Inconsistency between BCTS's FSP and the SFMP: Although it is a usual practice to meet 3.5% retention per block, BCTS's FSP does allow for wildlife tree retention areas to relate to more than one block. In this instance, it was a two-block permit with 3.2% retention on one block and 9% on the other, for a collective total of 7% retention.	
BCTS - Action plan: Scope out the possibility of introducing consistency between this SFM indicator and BCTS's FSP.	

Stand level retention consists primarily of wildlife tree patches (WTP) and riparian management areas. WTP are forested patches of timber within or adjacent to a harvested cutblock while riparian management areas are associated with water features within or adjacent to the harvest cutblock. Stand retention provides a source of habitat for wildlife, sustains local genetic diversity, and protects important landscape or habitat features, such as mineral licks and raptor nesting sites. Maintenance of habitat through stand retention contributes to

conservation of ecosystem diversity by conserving a variety of forest age classes, stand structure and unique features at the stand level.

Licensees and BCTS manage stand level retention for each cut block. Retention levels in each block are documented in the associated Site Plan, recorded in the Licensee/ BCTS database systems and reported out in RESULTS (Ministry of Forests and Range data base) on an annual basis.

The current status for average stand level retention for all cutblocks > 15ha with completed harvesting between April 1, 2010 and March 31, 2011 in the DFA is found in Table 7.

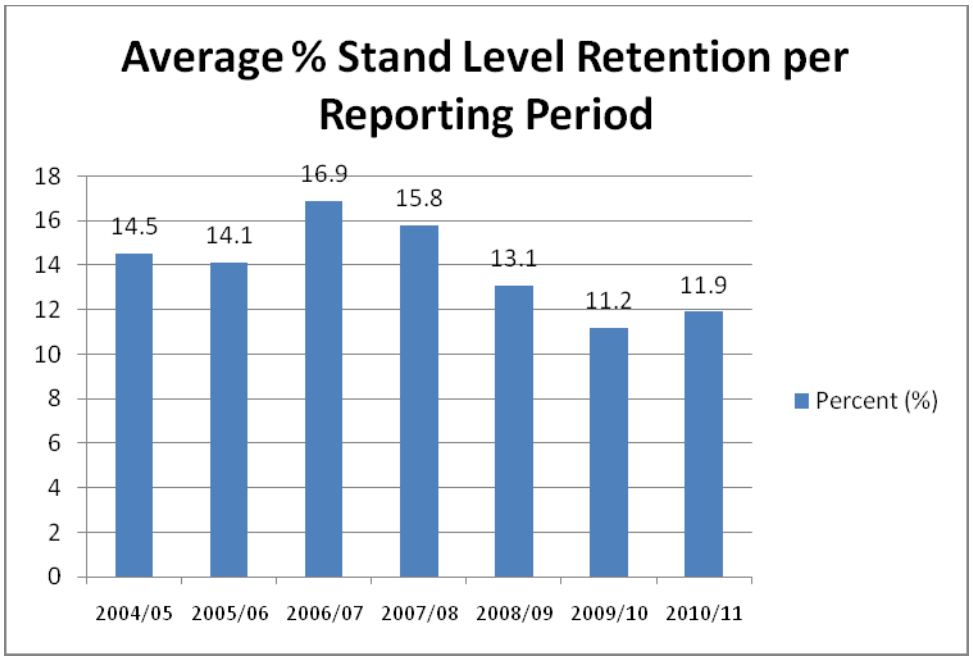
Table 7: Stand Level Retention in Harvested Areas

Licensee	Net Area Harvested (ha)*	Associated Total Retention (ha)	Average % Retained **	Total Number of Blocks	Blocks Achieving 3.5% Min. ***	% of Blocks Achieving 3.5% Minimum
Canfor	6318.2	739	11.7%	84	84	100.0%
BCTS	887.4	118	13.3	13	12	92.3%
TOTAL	7205.6	857	11.9%	97	96	99%

** Only blocks >15 ha with completed harvesting measured*

*** Average % retention =(total reserve area with 100% retention / total reserve area with 100% retention and net area to be reforested) X 100. Does not include permanent access structures and non-productive ground or other areas not included in the productive forest.*

**** Number of blocks achieving the 3.5% / total number of blocks harvested*



Indicator 6. (1.1.A.a | 2.1.A.a) Wet Trench & Wet Mountain Young Patch Size Distribution

Indicator Statement	Target and Variance
Trend towards the percentage of area of patches in 101-500ha range within the Wet Trench and Wet Mountain of the young patch size distribution class 101-1000ha	Target: ≥ 75% Variance: -5%

Was the Target Met? *Pending*

Patch size categories used in Prince George Forest District include the following: < 51 hectares, 51-100 hectares, 101-1000 hectares and > 1000 hectares. However in the higher elevation areas (Wet Trench and Wet Mountain natural disturbance units) the range of 101-1000 hectares is too large a range to actually account for the natural disturbance ecology. Therefore the range was sub divided into 101-500 hectares and 501-1000 hectares.

Table 8: Wet Trench and Wet Mountain Young Patch Size Distribution, to March 31st 2005

Natural Disturbance Unit (NDU)	TARGET	Patch Size Range (ha)			Future Patch Size Trending
		101-500	501-1000	Total	
Wet Mountain					Trend towards smaller patch sizes and away from larger patch sizes.
PG (ha)		6058.8	939.9	6998.7	
PG (%)	**≥ 75%**	86.5%			
Wet Trench Mountain					Trend towards smaller patch sizes and away from larger patch sizes.
PG (ha)		4,690.7	1,243.6	5,934.3	
PG (%)	**≥ 75%**	79%			
Wet Trench Valley					Trend towards larger patch sizes and away from smaller patch sizes.
PG (ha)		15,431.5	4,319.5	19,751	
PG (%)	**≥ 75%**	78%			

Indicator Discussion: The LOWG (which has representation from the Integrated Land Management Bureau, MoFR, and Licensees), developed Landscape Biodiversity Objectives for patch size distribution for the 101–1000 ha size category within the PG TSA, which includes the Prince George DFA. This indicator has a five-year measurement criterion as established in the PG TSA LOWG Reporting Protocol.

Licensees will continue to share block data and work towards having ≥ 75% of area of patches in the 101-500 ha size category within the 101-1000ha young patch size range within the Wet Trench and Wet Mountain Natural Disturbance Units.

Indicator 7. *(1.1.A.a)* Coarse Woody Debris

Indicator Statement	Target and Variance
The percentage of cut blocks consistent with coarse woody debris requirements in operational plans.	Target: 100% Variance: 0%

Was the Target Met? *Yes*

Coarse woody debris (CWD) is defined as material with the following characteristics and dimensions: minimum of 2.0 meters in length and greater than 7.5 cm in diameter at one end, in all stages of decay and consists of above-ground logs, exposed roots and large fallen branches (FPPR Sec.68. 2005). CWD is a vital component of a healthy functioning forest ecosystem, providing habitat for plants, animals and insects. It is an important source of soil nutrients and aids in soil moisture retention. Targets for CWD requirements are identified in operational plans, typically the site plan for each specific cutblock.

The Licensees and BCTS have met the target of 100% consistency with CWD requirements in operational plans for the operating period of April 1, 2010 to March 31, 2011 (Table 9). Licensees and BCTS will continue to implement pre-work checklists, interim inspections, and final reviews to ensure targets continue to be met.

Table 9: Cut Blocks Consistent with Coarse Woody Debris Requirements in Operational Plans

Licensee	Total Number of Blocks Harvested with CWD Strategies*	Number of Blocks Harvested Consistent with CWD Strategies	Overall %**
Canfor	88	88	
BCTS	11	11	100%
TOTAL	99	*99*	100%

** Blocks must be > 15 ha ** % = (Blocks harvested in accordance with prescribed strategies/total blocks harvested with CWD strategies) X 100*

Indicator 8. *(1.2.A.a | 2.2.A.a)* Species Diversity and Ecosystem Productivity

Indicator Statement	Target and Variance
The percentage of forest operations consistent with approved provincial Caribou	Target: 100%

Indicator Statement	Target and Variance
Ungulate Winter Range, Mule Deer UWR, Species At Risk Notice /Orders and Riparian Reserve requirements as identified in operational plans	Variance: 0%

Was the Target Met? *Yes*

Caribou UWR

Mountain caribou populations are highly sensitive to disturbance and predatory pressures within their habitat. Caribou numbers are in overall decline due to a variety of causes. The B.C. conservation data center has placed mountain caribou on the provincial red list. Local caribou populations are currently thriving in Prince George District despite the provincial trend. All cutblocks within approved ungulate winter ranges must be consistent with the management guidelines in the approved Order for Ungulate Winter Range #U7-003. The Order prescribes specific objectives to maintain mountain caribou winter range, to provide high suitability snow interception, cover, and foraging opportunities. Site plans prepared for these areas will reflect these objectives.

During this reporting period there were no operations within caribou ungulate winter range, hence the target for this measure was achieved.

Table 10: Forest Operations Consistent with Caribou Ungulate Winter Range Requirements

Licensee	Number of Forest Operations with Caribou Ungulate Winter Range (UWR) Requirements				Forest Operations Consistent with UWR Requirements	% in DFA**
	Roads	Harvesting	Silviculture*	Total		
Canfor	0	0	0	0	0	
BCTS	0	0	0	0	0	
TOTAL	**0**	**0**	**0**	**0**	**0**	**100%**

**Silviculture refers to Mechanical Site Preparation only*

*** % = (Operations completed in accordance with identified requirements/total operations with Caribou UWR requirements) X100*

Mule Deer UWR

The mule deer is an important ungulate found in many parts of the DFA. It is dependent on suitable winter range conditions in order to survive the severe winters that often occur within the DFA. As such, mule deer were included in the Order for Ungulate Winter Ranges. An "Ungulate Winter Range" (UWR) is an area that contains habitat that is necessary to meet the winter habitat requirements of an ungulate species. As many UWR can be directly and indirectly affected by forest harvesting activities it is important that Licensees and BCTS in the Prince George DFA track the UWR locations and establish management objectives.

No areas were harvested within mule deer UWR within the DFA during this reporting period (see Table 11).

Table 11: Forest Operations consistent with Mule Deer Ungulate Winter Range Requirements

Licensee	Number of Forest Operations with Mule Deer Ungulate Winter Range (UWR) Requirements				Forest Operations Consistent with UWR Requirements	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	
BCTS	0	0	0	0	0	
TOTAL	**0**	**0**	**0**	**0**	**0**	**100%**

* *% = (Operation meeting identified requirements/ total operations with Mule Deer ungulate Winter Range requirements) X 100*

Species at Risk Notice/Orders

This indicator is intended to monitor the consistency of forest operations with approved provincial Species at Risk Notice/Orders requirements as identified in operational plans. Being consistent with these requirements will ensure that the habitats that are required to support these Species at Risk will be maintained.

No harvesting occurred within areas with approved provincial Species at Risk Notice/ Order requirements during the reporting period of April 1, 2010 to March 31, 2011.

Table 12: Forest Operations consistent with Species at Risk Notice/ Orders Requirements

Licensee	Number of Forest Operations with Species at Risk Notice/Order (SAR) Requirements				Forest Operations Consistent with SAR Requirements	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	

BCTS	0	0	0	0	0	
TOTAL	**0**	**0**	**0**	**0**	**0**	**100**

** % = (Operations completed in accordance with identified requirements/total operations with Species at Risk requirements) X100*

Indicator Discussion: Licensees have produced maps that show the habitat amount and distribution of species at risk in the DFA from the Species at Risk Notice (Northern Caribou / Mountain Caribou).

Riparian Reserves
Riparian areas are the zones adjacent to lakes, streams, and wetlands. They encompass the area covered by continuous high moisture content and the adjacent upland vegetation. In British Columbia, legislation has identified Riparian Management Areas (RMA) which consist of a Riparian Management Zone (RMZ) and, where required, a Riparian Reserve Zone (RRZ).

Currently, riparian reserves are identified in the site plan for the cutblock and in the field. A site plan is completed prior to harvesting for most areas within the DFA. The riparian requirements within the site plan identify the type of riparian features present within or adjacent to a proposed harvest area, the size of the RMA (which includes the RRZ where applicable), and a prescription for specific activities within the RMA to protect water quality and habitat values.

The results of forest operations conducted between April 1, 2010 and March 31, 2011 within the DFA are shown in Table 13.

Table 13: Forest Operations Consistent with Riparian Reserve Requirements

Licensee	Total Number of Forest Operations with Riparian Reserve Requirements*				Number of Forest Operations Completed	% in DFA**
	Roads	Harvesting	Silviculture	Total Operations**		
Canfor	0	84	126	210	210	
BCTS	0	12	7	19	19	
TOTAL	**0**	**96**	**133**	**229**	**229**	**100%**

** Measured by block*
*** % = (Operations completed in accordance with identified requirements / operations with riparian reserve requirements) X 100*

Table 14: Indicator 8 Summary Table

Licensee	Total Number of Forest Operations with Caribou, Mule Deer, SAR and Riparian Reserve Requirements*				Number of Forest Operations Completed	% in DFA**
	Roads	Harvesting	Silviculture	Total Operations**		
Canfor	0	84	126	210	210	
BCTS	0	12	7	19	19	
TOTAL	**0**	**96**	**133**	**229**	**229**	**100%**

Indicator 9. (1.2.A.a) **Personnel Trained to Identify Species at Risk (Indicators 9, 10, 11, 12, 13, 15, 16 & 17 removed and replaced by Indicator 59).**

Indicator 14. (1.3.A.b) **Chief Forester's Standards for Seed Use**

Indicator Statement	Target and Variance
Percent compliance with Chief Forester's Standards for Seed Use	Target: 100% Variance: 0%

Was the Target Met? *Yes*

Adherence to the Chief Forester's Seed Use Standards is crucial for sustainable forest management as the standards are designed to establish healthy stands composed of ecologically and genetically appropriate trees. Planting unsuitable genetic stock could result in stands that will not meet future economic and ecological objectives.

Table 15 details the areas planted within the DFA in accordance with the Chief Forester's Standards for Seed Use for this reporting period.

Table 15: Compliance with Chief Forester's Standards for Seed Use

Licensee	Total Area Planted (ha)	Area Planted in Accordance with Chief Forester's Standards*	Total % DFA**
Canfor	6097.1	6097.1	100.0%
BCTS	4117.6	4117.6	100.0%
TOTAL	**10,214.7**	**10,214.7**	**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 18. *(1.4.B.a)* Harvesting within Landscape Level Reserves

Indicator Statement	*Target and Variance*
Hectares of unauthorized forestry related harvesting or road construction within landscape level biodiversity reserves	Target: 0 ha Variance: 0 ha

Was the Target Met? *Yes*

Landscape level biodiversity reserves/ Protected Areas are areas protected by legislation, regulation, or land-use policy to control the level of human occupancy or activities (*Canadian Standards Association, 2003).* These include Old Growth Management Areas (OGMA), parks, and new protected areas. As forestry activities may occur near these areas the chance exists for unauthorized harvesting or road construction to happen within these sites. In addition to being an obvious violation of legislation, such an act would also damage sites and organisms that were set aside for protection. Tracking the number of unauthorized hectares within landscape level biodiversity reserves will allow forest managers to determine if and when improvements are needed in the planning process and implementation of forestry activities.

Table 16 shows the amount of unauthorized forestry operations within landscape level biodiversity reserves between April 1, 2010 and March 31, 2011 within the DFA.

Table 16: Unauthorized Forestry Operations within Landscape-Level Biodiversity Reserves

Licensee	Number of Unauthorized Harvesting Incidents*	Total Area of Unauthorized Harvesting (ha)	Number of Unauthorized Road Construction Incidents	Total Area of Unauthorized Road Construction (ha)
Canfor	0	0	0	0
BCTS	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

**As per internal tracking systems*

Indicator 19. (2.1.A.a) Areas Planted Consistent with Operational Plans

Indicator Statement	*Target and Variance*
Percent of areas planted consistent with operational plans	Target: 100% Variance: -5%

Was the Target Met? *Yes*

To ensure a minimum regeneration delay and complete stocking, nearly all harvested sites are planted with ecologically suitable coniferous species to prescribed densities. Species are prescribed within the site plan on the basis of ecological suitability, and the management objectives for the stand. Densities are prescribed based on forest health concerns and historic levels of natural regeneration in those areas.

As shown in table 17 below, 99.6% of the areas planted between April 1, 2010 and March 31, 2011 within the DFA were consistent with operational plans.

Table 17: Areas Planted Consistent with Operational Plans

Licensee	Total Area Planted (ha)	Area Planted in accordance with Operational Plans (ha)*	% in DFA**
Canfor	7,860.0	7,816.0	
BCTS	4,077.1	4,077.1	
TOTAL	**11,937.1**	**11,893.1**	**99.6%**

** Licensees may address what they consider significant factors (density, species, spacing etc.)*
** % = (Area planted in accordance with operational plans / total area planted) X 100

Indicator 20. *(3.1.A.a)* Soil Conservation Standards

Indicator Statement	*Target and Variance*
The percentage of forest operations consistent with soil conservation standards as identified in operational plans	Target: 100% Variance: 0%

Was the Target Met? *Yes*

Conserving soil function and nutrition is crucial to sustainable forest management. To achieve this, forest operations have limits on the amount of soil disturbance they can create. Soil disturbance is expected to some extent from timber harvesting or silviculture activities, but these activities are held to soil conservation standards outlined in site plans (where they are more commonly known as "soil disturbance limits"). The site plan prescribes strategies for each site to achieve activities and still remain within acceptable soil disturbance limits.

As shown in the table below, 100% of forest operations conducted between April 1, 2010 and March 31, 2011 within the DFA are consistent with soil conservation standards as identified in the operational plans.

Table 18: Forest Operations Consistent with Soil Conservation Standards

Licensee	Total Number of Forest Operations			Forest Operations Consistent with Soil Conservation Standards	% in DFA*
	Harvesting and Roads	Silviculture**	Total		
Canfor	84	14	98	98	
BCTS	13	10	23	23	
TOTAL	**97**	**24**	**121**	**121**	**100%**

* % = (Operations completed in accordance with soil conservation standards / total operations completed) X 100
** Refers to maximum levels addresses mechanically site prepared blocks only

Indicator 21. *(3.1.A.a | 4.2.A.a)* Cutblock Area Occupied by Permanent Access Structures

Indicator Statement	*Target and Variance*
The percentage of cutblock area occupied by total permanent access structures	Target: ≤ 5% - averaged annually Variance: +1%

Was the Target Met? *Yes*

This indicator measures the amount of area developed as permanent access structures (PAS) within cutblocks, in relation to the area harvested during the same period. Permanent access structures include roads, bridges, landings, gravel pits, or other similar structures that provide access for timber harvesting. Area that is converted to non-forested land, as a result of permanent access structures and other development, is removed from the productive forest land base and no longer contributes to the forest ecosystem

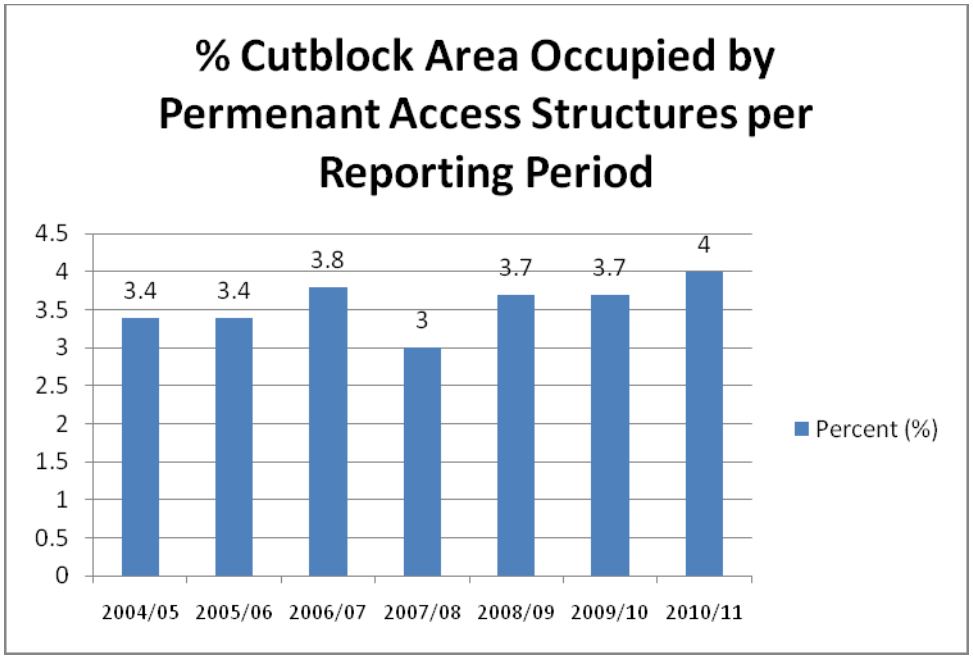
The area occupied by permanent access structures in cut blocks harvested during this reporting period within the DFA are found in Table 19.

Table 19: Cut Block Area Occupied by Total Permanent Access Structures

Licensee	Total Cutblock Area Harvested (ha) *	Total cutblock Area in Permanent Access Structures	% of Cutblock Area**
Canfor	5,470.2	224.4	4.1%
BCTS	921.9	33.8	3.7
TOTAL	**6,392.1**	**258.2**	**4.0%**

** Total cutblock area = gross area less natural NP.* *** % = (Area of permanent access structures/ total cutblock area) X 100*

As shown in the figure below, the average cutblock area occupied by total permanent access structures over the last five years within the DFA has been below the target of ≤ 5%.



Indicator 22. *(3.1.A.a)* Terrain Management

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

Was the Target Met? *Yes*

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

Table 20 indicates forest operations with terrain management requirements on blocks harvested between April 1, 2010 and March 31, 2011 within the DFA.

Table 20: Forest Operations consistent with Terrain Management Requirements

Licensee	Number of Forest Operations with Terrain Management Requirements (TMR)				Forest Operations in Compliance with TMR	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	
BCTS	0	0	0	0	0	
TOTAL	0	0	0	0	0	**0%**

** % = (Operations completed in accordance with terrain management requirements / total operations completed) X 100*

Indicator 23. *(3.1.A.a)* Reportable Spills

Indicator Statement	*Target and Variance*
The number of legally reportable spills	Target: 0 (annually) Variance: ≤ 3 (annually)

Was the Target Met? *Yes*

The Spill Reporting Regulation of the *BC Waste Management Act* requires any spill in excess of the reportable level for that substance to be immediately reported by the person involved or an observer to the Provincial Emergency Program.

This indicator is intended to monitor the number of spills that may occur as a result of forest operations and evaluate the success of measures to reduce such spills. The use of heavy equipment for forest operations may result in accidental petroleum/ antifreeze release into the environment. As these materials can be toxic to plants and animals, avoidance of such spills or ensuring their proper containment will contribute to sustainable forest management. By tracking spill occurrence, guidelines and procedures can be adjusted to improve handling and transportation procedures to avoid a reoccurrence of the spill.

At its January 12th 2010 meeting, the PG PAG consented to a revision to this indicator variance, from "≤5 (annually)" to "≤3 annually". The revision was suggested by the Steering Committee to reflect the departure of Lakeland Mills and Winton Global from the SFMP.

In December 2010, Canfor reported a spill of 30L of oil and 5 gallons of diesel into a creek, as a result of a logging truck accident. As is required, the spill was cleaned up by the harvesting contractor.

Table 21: The Number of "Legally" Reportable Spills

Licensee	Number of Legally Reportable Spills
Canfor	1
BCTS	0
TOTAL for DFA	**1**

Indicator 24. *(3.2.A.a)* Riparian Area Conservation

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

Was the Target Met? *Yes*

Riparian areas occur adjacent to streams, lakes and wetlands. They include both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. Riparian habitat can be critical for providing wildlife cover, fish food organisms, stream nutrients, large organic debris, stream bank stability and maintenance of water quality and quantity. Riparian features are also well appreciated by humans for recreation, aesthetics, and sustaining water quality.

This indicator is intended to ensure that the strategies identified in operational plans (such as site plans) to conserve riparian values have those strategies implemented on the ground. Once a strategy to conserve riparian values is included in a Forest Stewardship Plan, there is a legal obligation for the licensee to implement and adhere to the strategy. Harvest, road and silviculture inspections ensure that strategies are implemented as stated in the Site Plan document.

Table 22: Forest Operations Consistent with Riparian Management

Licensee	Total Number of Forest Operations with Riparian Management Requirements			Number of Forest Operations with Requirements Met	% in DFA*
	Harvesting/Roads	Silviculture	Total		
Canfor	84	14	98	98	
BCTS	12	8	20	20	
TOTAL	**96**	**22**	**118**	**118**	**100%**

* % = (Operations completed in accordance with riparian management requirements / total operations completed) X 100

Indicator 25. *(3.2.A.a)* Stream Crossing Management

Indicator Statement	*Target and Variance*
The percentage of stream crossings that are installed or removed consistent with erosion control plans or procedures	Target: 100% Variance: -5%

Was the Target Met? Yes

Forestry roads can have a large impact on water quality and quantity when they intersect with streams, particularly by increasing sedimentation into water channels. Increased sedimentation can damage spawning beds, increase turbidity, and effect downstream water users. Erosion control plans and procedures are used to ensure installations and removals are done properly. To measure the success of this indicator it is important to ensure that a process is in place to monitor the quality of stream crossings, their installation, removal, and to mitigate any issues as soon as possible. Streams and crossing structures are identified during operational plan preparation. Pre-work forms are completed for all projects, including stream crossings, as part of EMS/Standard Operating Procedures. Stream crossing installations are usually planned for timeframes when conditions are favorable (i.e. fish windows). Appropriate erosion control devices are also installed during the installation process, such as silt fences.

Table 23 illustrates the number of stream crossings installed or removed between April 1, 2010 and March 31, 2011.

Table 23: Stream Crossings Consistent with Erosion Control Plans or Procedures

Licensee	Number of Stream Crossings with Erosion Control Plans	Number of Stream Crossings Completed According to Erosion Control Plans	% in DFA
Canfor	27	27	
BCTS	34	34	
TOTAL	**61**	**61**	**100%**

** % = (Stream crossings treated in accordance with erosion control plans / total stream crossings activities) X100*

Indicator 26. *(3.2.A.a)* Mitigating Sedimentation

Indicator Statement	*Target and Variance*
The percentage of unnatural known sediment occurrences where mitigating actions were taken	Target: 100% Variance: -5%

Was the Target Met? Yes

Sedimentation can damage water bodies by degrading spawning beds, increasing turbidity, and reducing water depths. Forest management activities may create unnatural inputs of sedimentation into water bodies. In addition to the effects of roads, sedimentation may also occur from slope failures as a result of forestry activities. Once sedimentation occurrences are detected, mitigating actions must be taken to stop further damage and rehabilitate the site. Tracking these mitigation actions contributes to sustainable forest management by evaluating where, when and how sedimentation occurs and the monitoring results of mitigation actions. Forestry personnel detect sedimentation occurrences during stream crossing inspections, road inspections, silviculture activities, and other general activities. 100% of the unnatural known sediment occurrences had mitigation actions taken as shown in Table 24.

Table 24: Unnatural Known Sediment Occurrences where Mitigating Actions were Taken

Licensee	Total Number of Unnatural Known Sedimentation Occurrences	Total Number of Mitigation Actions Required	Total Number of Mitigation Actions Taken	% DFA *
Canfor	1	1	1	
BCTS	0	0	0	
TOTAL	**1**	**1**	**1**	**100%**

** % = (Total number mitigation actions taken/ total number of mitigation actions required) X 100*

Indicator 27. *(3.2.A.a)* Maintenance of Natural Stream Flow

Indicator Statement	*Target and Variance*
The percentage of new stream crossings that maintain natural stream flow	Target: 100% Variance: 0%

Was the Target Met? *Yes*

When forest roads are constructed it is often necessary to build structures (i.e. culverts, bridges) that intersect fish-bearing streams. In order to maintain the number and diversity of fish species, stream crossings cannot be

a barrier to fish migration. As fish are also an important food source, the success of these stream crossings contributes to the population maintenance of other faunal species within the DFA.

Careful consideration of the size of the crossing structure must be made to ensure that the structure can manage natural high water events. This indicator will measure the success of maintaining fish movement and managing peak flow at all new stream crossings within the DFA.

Streams and crossing structures are identified during operational plan preparation. The streams are surveyed for their fish bearing potential and qualified personnel determine their probable peak flow volumes. The appropriate crossing structure size and installation procedure is then prescribed for the stream crossing.

As shown in Table 25, 100% of all new stream crossings were installed to maintain natural stream flow.

Table 25: New Stream Crossings that Maintain Natural Stream Flow

Licensee	Total Number of New Steam Crossings Installed	Number of New Stream Crossings Maintaining Natural Stream Flow*	% in DFA**
Canfor	32	32	
BCTS	1	1	
BCTS (FLA70174)	0	0	
TOTAL	**33**	**33**	**100%**

** Unrestricted stream flow which accommodates fish passage*
*** % = (Stream crossings that maintain natural flow / total number of stream crossings) X 100*

Indicator 28. (3.2.A.a | 4.1.A.a | 5.1.A.a) Forest Continuity

Indicator Statement	*Target and Variance*
Percent of net area regenerated within 3 years after the commencement of harvesting.	Target: 100% annually Variance: -2%

Was the Target Met? *Yes*

Trees have a profound influence on water quality and quantity. They intercept precipitation, shade streams, bind soil particles, and draw moisture from the soil. When harvesting occurs there can be immediate impacts to the hydrologic cycle. Water tables may rise, water temperatures may increase, and stream levels may become more erratic as the mitigating influence of the forest is absent. One of the objectives to regenerating harvested areas quickly and efficiently is to restore the balance to the hydrology in the area. Tracking the area regenerated in comparison to the area harvested on a landscape level will ensure that harvesting does not outpace the ability of the DFA to adjust to changes in its hydrology. In addition to hydrological and ecological benefits, prompt reforestation benefits society in the short and long term. Regenerated cutblocks improves aesthetics, provides recreational opportunities, and contributes to the economic future of the forest industry.

Site plans define the standards to which regenerated blocks will be held to, and the timeframe to which they must reach Free Growing status. The prescribed legal date for regenerating a cutblock is the "regen" date, and varies depending on the ecosystem association being reforested. This indicator measures harvesting and reforestation on a landscape level and provides a different perspective than traditional reforestation goals set at the individual cutblock level.

As shown in the following table, 99.0% of the net area was regenerated within 3 years of the start of harvesting.

Table 26: Percent of area regenerated within 3 years after the commencement of harvesting.

Licensee	Harvesting (ha) on NAR commenced from April 1, 2007 to March 31, 2008	Of the area harvested, net area regenerated (ha) * by reporting year.	% in DFA**
Canfor	10,317.0	10,317.0	
BCTS	2,998.2	2,871.7	
TOTAL	**13,315.2**	**13,188.7**	**99.0%**

** Area qualified as regenerated as soon as planting takes place ** % = (Total area regenerated/ total area harvested) X 100*

Indicator 29. (3.2.A.a) Peak Flow Index Calculations (Removed and replaced by Indicators 56, 57 and 58)

Indicator 30. *(4.1.A.a)* Free Growing Requirements

Indicator Statement	*Target and Variance*
Percent of cut block area that meets Free Growing requirements as identified in Site Plans	Target: 100% Variance: 0%

Was the Target Met? *Yes*

This indicator measures the percentage of harvested blocks that meet free growing obligations across the DFA. A free growing stand is a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees (BC MOF 1995b). A free growing assessment is conducted on stands based on the time frame indicated by the site plan. If a survey indicates that the stand has not achieved free growing status by the required date, corrective actions will be prescribed immediately in order to remedy the situation while still meeting the late free growing deadline.

While this percentage is an important legal requirement for Licensees and BCTS, it is also important for sustainable forest management. Stands that meet free growing standards are deemed to have reached a stage where their continued presence and development is more assured. They are of a stand density, health, and height that make them less vulnerable to competition and more likely to reach maturity. Producing a free to grow stand means that the forest ecosystem will continue to evolve. It means that carbon sequestration will also continue, locking up additional green house gases as cellulose in the growing plantation.

For the reporting period of April1, 2010 to March 31, 2011 the target for this measure was met as demonstrated in Table 27.

Table 27: Cut Block Area that Meets Free Growing Requirements as Identified in Site Plans

Licensee	Cut Block Area Required to Meet Late Free Growing Status (ha)	Cut Block Area Meeting Free Growing Status (ha)	% in DFA*
Canfor	6,628.6	6,628.6	100%
BCTS	1,996.9	1,996.9	100%
TOTAL	8,625.5	8,625.5	**100%**

** % = (Cut block area achieving free to grow status/ cutblock area required to meet free to grow status) X 100*

Indicator 31. *(4.1.A.a)* Stand Damaging Agents

Indicator Statement	*Target and Variance*
Areas with stand damaging agents will be prioritised for treatment	Target: 100% Variance: -10%

Was the Target Met? *Yes*

Damaging agents are considered to be biotic and abiotic factors (fire, wind, insects etc.) which reduce the net value of commercial timber. At present, the most serious stand-damaging agent in the Prince George DFA is the Mountain Pine Bark Beetle, which has killed millions of mature, commercially viable Lodgepole pine. Prioritizing infested stands for treatment can contribute to sustainable forest management in several ways. Removing infested trees can slow the spread of beetles to adjacent healthy stands and allow Licensees to utilize trees before they deteriorate. Also, once harvesting is complete the area can be replanted, turning an area that would have released carbon through the decomposition of dead trees into the carbon sink of a young plantation. All Licensees and BCTS target damaged stands in a similar manner. Each year the volume of damaged timber is assessed within the DFA. Of this volume, licensees prioritize planning and harvesting activities based on levels of attack, stage of attack, wood quality and milling capacity/needs. This indicator measures the success in ensuring areas with stand damaging agents have been assessed and have been prioritized for treatment, if required and thereby minimizing value losses within the DFA.

Table 28 shows the areas with stand damaging agents that were prioritized for treatment between April 1, 2010 and March 31, 2011 within the DFA.

Table 28: Areas with Stand Damaging Agents Prioritized for Treatment

Licensee	Total Area with Stand Damaging Agents Identified	Area with Stand Damaging Agents that are Prioritized for Treatment (ha)	% for DFA*
Canfor	1,137,218	1,137,218	100%
BCTS	555,699	555,699	100%
TOTAL	**1,882,026**	**1,882,026**	**100%**

** % = (Area with damaging agents prioritized for treatment / total area with stand damaging agents identified) X 100*

Indicator 32. *(4.2.A.a)* Forest Land Conversion

Indicator Statement	*Target and Variance*
The total percentage of forested land within the timber harvesting landbase that is converted to non-forested land.	Target: ≤4% Variance: + 0.5%

Was the Target Met? *Yes*

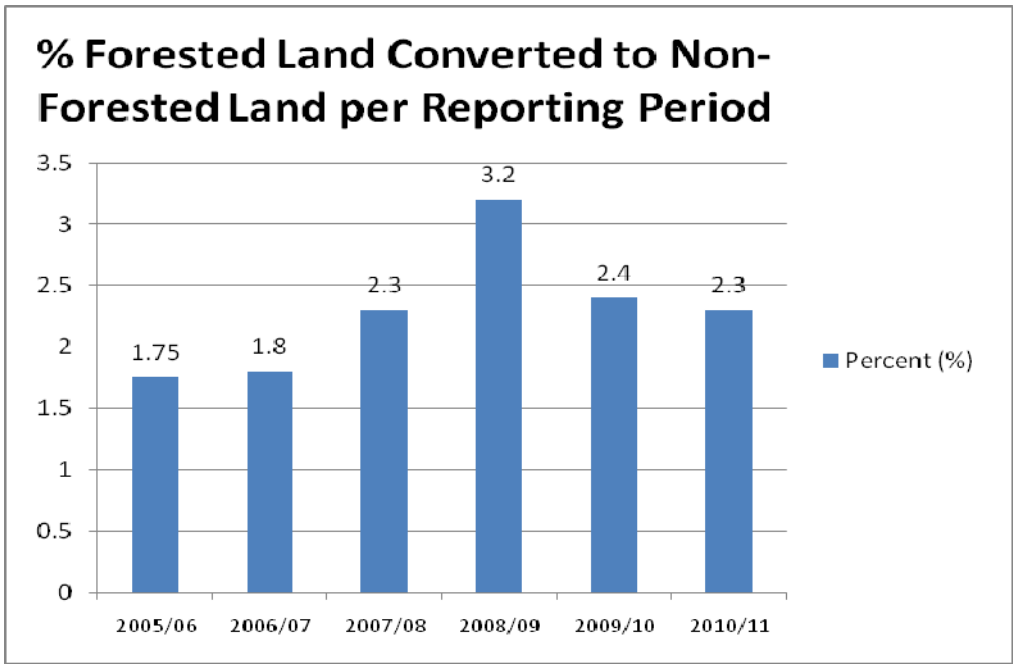
Forested land is converted to non-forested land as a result of forest operations through the development of permanent roads, bridges, landings, gravel pits and other similar structures in order to provide timber harvesting access. These structures remain in place after forest operations are complete. As roads are constructed, the ability of the landbase to support forests that contribute to ecosystem diversity, productivity as well as soil and water conservation is either eliminated or reduced. Minimizing the loss of total forest landbase contributes to the sustainable forest management of the forest ecosystem for the DFA.

This indicator monitors on an annual basis the conversion of forested land in relation to the Timber Supply Review standard of 5% THLB conversion to permanent access structures.

Table 29: Forested Land Converted to Non-Forested Land

Licensee	Total THLB* (ha)	Total Area of THLB in Permanent Access Structures** (ha)	% of THLB Area in DFA *** (ha)	Area of New Permanent Access Structures Constructed (ha)
Canfor	1,327,967	32,176	2.4%	169.8
BCTS	301,578	5,328	1.8%	63
TOTAL	**1,629,545**	**37,504**	**2.3%**	**232.8**

** THLB: total harvestable landbase = gross area less non-productive landbase ** Area of Permanent Access Structures = Road Length (km) X Road Width (Forest Service Roads (25.0 m), Road Permit (15.0 m), On-Block (10.0 m), Non-Status (13.0 m)).*
**** % in DFA = Area of permanent access structures/ THLB area) X 100*



Indicator 33. *(5.1.A.a)* Cut Level Volumes

Indicator Statement	*Target and Variance*
The cut level volumes compared to the apportionment across the Timber Supply Area	Target: ≤100% Over each 5 year cut control period Variance: +10%

Was the Target Met? *Pending*

To be considered sustainable, harvesting a renewable resource such as timber cannot deplete the resource on an ecological, economic or social basis. During the Allowable Annual Cut (AAC) determination, various considerations are examined including the long term sustainable harvest of the timber resource, community stability, wildlife use, recreation use, and the productivity of the DFA. The AAC is generally determined every five years by the Chief Forester of British Columbia, using extensive data and forecasts to assess the many resource values that need to be managed. On behalf of the Crown, the Chief Forester makes an independent determination of the rate of harvest that is considered sustainable for a particular Timber Supply Area (TSA). The Prince George DFA comprises about 44% of the larger Prince George TSA area.

The harvest level for a TSA must be met within thresholds that are established by the Crown. Maintaining the rate of harvest consistent with what is considered by the province to be sustainable ecologically, economically and socially within the DFA is considered sound forest management. The final review for this measure will be undertaken at the end of the cut control period.

As shown in the table below, the licensees are currently at a cut level of 68.8% of the apportioned amount.

Table 30: Cut Level Volumes Compared to the Apportionment across the Timber Supply Area

Licensee	5 year AAC Volume for DFA	Actual Volume Cut for Reporting Period*	Number of Years into Cut Control Period	Overall % of 5 Year Cut Control for DFA**
Canfor	11,942,755	8,920,254	4 of 5	74.7%
BCTS	5,565,520	3,134,183	4	56.3%
TOTAL	**17,508,275**	**12,054,437**	**4**	**68.8%**

**Actual volume cut / 5 year volume apportioned*
***% = (Actual cut level volume / AAC volume apportioned) X 100*
**** The calculation for BCTS will be different*
+BCTS data from cut control letters for forest licenses or best information available at the time

Indicator 34. *(5.1.A.a)* Forestry Related Industrial Fires

Indicator Statement	*Target and Variance*
Number of hectares (area) damaged by accidental forestry related industrial fires	Target: <60 ha annually Variance: 5.0 ha

Was the Target Met? *Yes*

This indicator measures the number of hectares affected by industrial forest fires. As forest fires can result in catastrophic losses to timber supply, wildlife habitat, and private property, a high value has been placed on reducing the impact of these fires within the DFA. Accidental industrial fires can be caused by various sources, including escapes from the use of prescribed fire (e.g. burning slash piles) or from human induced error (e.g. machinery, cigarette smoking, etc.).

Industrial fires are usually brought under control quickly due to the availability of fire-fighting equipment and Licensee/ BCTS Fire Preparedness Plans. In contrast, naturally caused fires have the potential to quickly grow in size before fire control efforts can be undertaken. However the area and extent of accidental industrial fires must be minimized throughout the DFA in order to contribute to the overall health of the forest and long-term sustainability of the resource.

At its January 12th 2010 meeting, the PG PAG consented to a revision to this indicator target, from "<100 ha annually" to "<60 ha annually". The revision was suggested by the Steering Committee to reflect the departure of Lakeland Mills and Winton Global from the SFMP.

BCTS did not report any accidental forestry-related fires during this period. There were 29.85 ha of accidental forestry-related industrial fires (Canfor's operations) in 2010/11.

Indicator 35. *(5.1.A.b)* Non Timber Benefits

Indicator Statement	*Target and Variance*
The percentage of forest operations consistent with visual cultural heritage, range, riparian, recreation and lakeshore requirements as identified in operational plans.	Target: 100% Annually Variance: 0%

Was the Target Met? *Yes*

Visual Quality

Forests can provide intangible benefits in addition to their economic and ecological values. The perceived visual quality of certain areas is one of these benefits and must be considered in forest management. Protection and maintenance of visual quality helps ensure that these values will be available for current and future generations. A Visual Quality Objective (VQO) is a resource management objective established by the MoFR District Manager, or contained in a higher level plan that reflects the desired level of visual quality. It is based on the physical characteristics and social concern for the area.

The indicator is designed to ensure that those operational plans with identified strategies to conserve visual quality have those strategies implemented on the ground. Visual Impact Assessments (VIA) are conducted on all identified visual quality areas, which help determine block shape, location and internal retention options. At the site level these strategies are included within the Site Plan to minimize visual impacts.

Table 31 indicates between April 1, 2010 and March 31, 2011, within the DFA, 100% of forest operations with visual quality requirements were adhered to.

Table 31: Forest Operations Consistent with Visual Quality Requirements

Licensee	Number of Forest Operations with Visual Quality Requirements (VQR)				Forest Operations Consistent with VQR	% for DFA *
	Roads	Harvesting	Silviculture	Total		
Canfor	0	8	0	8	8	
BCTS	0	0	0	0	0	
TOTAL	**0**	**8**	**0**	8	**8**	**100%**

** % = (Operations completed in accordance with visual quality requirements / total operation completed) X 100*

Cultural Heritage

The protection of cultural heritage values assures they will be identified, assessed and available to future generations. A cultural heritage value is a unique or significant place or feature of social, cultural or spiritual importance. It may be an archaeological site, recreation site or trail, cultural heritage site or trail, historic site or a protected area. Cultural heritage values often incorporate First Nation's heritage and spiritual sites, but they can also involve features protected and valued by non-aboriginal people. Maintenance of cultural heritage values is an important aspect to sustainable forest management because it contributes to respecting the social and cultural needs of people who traditionally and currently use the DFA for a variety of reasons.

Forest plans have used an Archaeological Predictive Model to assess the potential presence of archaeological resources within proposed harvest areas or road access corridors. Where activities are proposed within zones of high archaeological potential, Licensees and BCTS conduct site level Archaeological Evaluations (AE) to identify, assess and record any archaeological resources that may be present. Once a strategy to conserve cultural heritage values is included within an operational plan, there is a legal obligation for the licensee to implement and adhere to the strategy. Harvest and subsequent silviculture inspections ensure that these strategies are implemented as stated in the operational plan.

Table 32: Forest Operations Consistent with the Cultural Heritage Requirements

Licensee	Number of Forest Operations with Cultural Heritage Requirements				Total with Cultural Heritage Requirements Met	% for DFA *
	Roads	Harvesting	Silviculture	Total		
Canfor	0	24	4	28	28	
BCTS	0	7	0	7	7	
TOTAL	**0**	**31**	**4**	**35**	**35**	**100%**

** % = (Operations completed in accordance with cultural heritage requirements / total operations completed) X 100*

Range
The livestock industry has been an important part of British Columbia's economy for over a century. Historically, ranchers have used Crown range resources as a source of feed for their animals. Conservation of identified range resources will help to assure their availability for future generations. Range resources can include grazing or hay cutting permits or areas with potential for these ventures. Range managers and forest managers share the forest for their particular purposes, and must work cooperatively in order to achieve sustainable development and management of its resources. This indicator will help to ensure that various range values are conserved for current and future generations

Table 33 shows 100% of forest operations on blocks with range management requirements were adhered to during the reporting period within the DFA.

Table 33: Forest Operations Consistent with Range Requirements

Licensee	Total Number of Forest Operation with Range Requirements				Total Number with Range Requirements Met	% for DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	1	0	1	1	
BCTS	0	0	1	1	1	
TOTAL	**0**	**1**	**1**	**2**	**2**	**100%**

** %= (Operations completed in accordance with range requirements / total operations completed) X 100*

Riparian Management (see Indicator 24)

Recreation
The consideration of non-timber values such as recreation is important to sustainable forest management as it recognizes the multiple benefits forests can provide to society. Licensees and BCTS currently solicit public and stakeholder input during Forest Development Plan/ Forest Stewardship Plan development. Land and Resource Management Plans (LRMP) can also provide direction for planning for recreational interests. The site plan for a cutblock provides the site-specific requirements that operations have to achieve to meet the needs of recreational users. Once a recreation strategy is included within an operational plan document, there is a legal obligation for the Licensee or BCTS to implement and adhere to the strategy. Harvest and silviculture inspections ensure that these strategies are implemented as stated in the operational plan.

Table 34 shows forest operations within areas with recreation management requirements between April 1, 2010 and March 31, 2011 within the DFA.

Table 34: Forest Operations Consistent with Recreation Requirements

Licensee	Total Number of Forest Operations with Recreation Requirements				Number of Forest Operations Meeting Recreation Requirements	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	2	0	2	2	
BCTS	0	0	0	0	0	
TOTAL	**0**	**2**	**0**	**2**	**2**	**100%**

** % = (Operations completed in accordance with recreation requirements/total operations completed) X 100*

Lakeshore
Lakeshores are a type of riparian habitat that may be critical for providing wildlife cover, fish food organisms, and supporting unique vegetation communities. They are also highly valued for their recreational and aesthetic properties. The protection and maintenance of lakeshores will ensure that these values will be conserved for current and future generations.

Lakeshore values are generally identified through the planning process and then verified on the ground during field exercises. Lakeshore management areas are initially identified on a map during the preparation of the Forest Stewardship Plan. If harvesting operations are planned for an area that may contain lakeshore values, additional information is identified in a site plan. The site plan also prescribes any management activities that are to be undertaken to conserve the lakeshore riparian values. Once lakeshore requirements are identified in operational plans, there is a legal obligation for the Licensee or BCTS to implement and adhere to those requirements.

Table 35: Forest Operations Consistent with Lakeshore Requirements

Licensee	Number of Forest Operations with Lakeshore Requirements				Number with Requirements Met	% for DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	30	3	33	33	
BCTS	0	2	0	2	2	
TOTAL	**0**	**32**	**3**	**35**	**35**	**100%**

** % = (Operations completed in accordance with lakeshore requirements / total operations completed) X 100*

Table 36: Indicator 35 Summary (exclusive of Riparian – see Indicator 24)

Licensee	Number of Forest Operations with Visual, Cultural Heritage, Range, Riparian, Recreation and Lakeshore Requirements				Number with Requirements Met	% for DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	65	7	72	72	
BCTS	0	9	1	10	10	
TOTAL	**0**	**74**	**8**	**82**	**82**	**100%**

Indicator 36. *(5.1.A.b)* First Order Wood Products

Indicator Statement	*Target and Variance*
The number of first order wood products produced from trees harvested from the DFA	Target: ≥ 12 types of products annually Variance: -3

Was the Target Met? *Yes*

This indicator monitors the number of first order wood products that are produced within the DFA. First order wood products are items directly produced from trees. This indicator demonstrates how forest management activities contribute to a diversified local economy based on the range of products produced at the local level. By ensuring a large portion of the volume of timber harvested within the DFA is processed into a variety of products at local facilities, the local economy will remain stable, diverse, and resilient.

Each Licensee currently produces a variety of forest products with different grades and sizes of dimensional lumber being the primary products (Table 37). BCTS is limited to providing raw logs for sale through an open competitive bid process. Licensees also produce specialty wood products such as Japanese select lumber, Machine Stress Rated lumber, and a variety of special order lumber products.

As per Table 37, 13 first order wood products were produced from trees harvested from the DFA during the reporting period.

Table 37: First Order Wood Products Produced from Trees Harvested from the DFA

Licensee	Canfor	BCTS	Products Produced
Raw Logs	0	1	**1**
House Logs	0	0	**0**
Lumber	1	0	**1**
Pellet Fibre	1	0	**1**
Re-man Lumber*	1	0	**1**
Pulp Chips	1	0	**1**
OSB Stands	0	0	**0**
Hog Fuel	1	0	**1**
Wood Shavings	1	0	**1**
Plywood	1	0	**1**
Veneer	0	0	**0**
Pole Logs	1	0	**1**
Railway Ties	0	0	**0**
Sawdust	1	0	**1**
Instruments	1	0	**1**
Finger Joint	1	0	**1**

Licensee	Canfor	BCTS	Products Produced
Oilfield Matts	1	0	**1**
Total	12	1	**13**

** Remanufactured lumber - trim blocks*

Indicator 37. *(5.1.A.b)* Volume Advertised through Competitive Bid

Indicator Statement	*Target and Variance*
The percentage of DFA volume advertised for sale through open competitive bid	Target: ≥ 20% Annually Variance: -5%

Was the Target Met? *Yes*

Most of the timber harvested in the DFA is collectively cut under major licenses held by Forest Licensees. However, a percentage of the annual volume cut is advertised for sale through an open competitive bid process. The Crown through BC Timber Sales (BCTS) sells this volume of timber. BCTS develops and sells publicly owned timber to establish market prices and optimize net revenue to the Crown. Reliant on the highest bid, BCTS sells units of timber across the DFA to a variety of customers, including sawmill operators, small-scale loggers, and timber processors.

In addition to helping establish market prices and providing revenue to the Crown, BCTS provides the opportunity for customers to purchase timber in a competitive and open market. In this way people who might not have access to Crown timber have an opportunity to purchase it in an equitable manner.

This indicator evaluates the volume of timber advertised for sale through open competitive bid. The process contributes to the social and economic aspects of SFM by creating opportunities for forest sector employment, and by providing revenue to the Crown that reinvests the money back into the DFA through government programs and institutions. Tracking the indicator will ensure that the volume of timber offered for sale in this manner is sufficient to meet the goals of sustainable forest management.

Table 38 reports on the percentage of volume advertised through an open competitive bid in the Prince George Forest District. During this reporting period, 33.9% of volume in the Prince George Forest District was advertised through open competitive bid.

Table 38: Volume Advertised for Sale through Open Competitive Bid

Licensee	Total Annual Volume in the Prince George Forest District (m3)*	Volume Advertised for Open Competitive Bid (m3)**	% in DFA***
Canfor	2,439,347	0	
BCTS	1,144,729	1,214,849	
TOTAL	**3,584,076**	**1,214,849**	**33.9%**

** Volume is cut control volume billed in that calendar year from the PG District. ** Volume for BCTS is the apportioned volume for each fiscal year *** % For DFA = (volume advertised for sale through open competitive bid / total annual volume) X 100*

Indicator 38. *(5.1.A.b)* Public and Stakeholder Input

Indicator Statement	*Target and Variance*
The number of opportunities given to the public and stakeholders to express forestry related concerns and be involved in planning processes	Target: ≥ 15 Annually Variance: -3

Was the Target Met? *Yes*

Forestry activities can impact a wide sector of the general public and individual stakeholders within the DFA. This indicator was designed to monitor the success of the Licensees and BCTS at providing effective opportunities to residents and stakeholders to express concerns and proactively be involved in the planning process. This process ensures that when forestry activities are planned, information is exchanged in an effective and timely manner, so as to resolve potential conflicts before they occur. This process will help to identify the public values, interests and uses of the forest that will be considered within the Prince George Licensees and BCTS planning framework. There are many opportunities for the public and stakeholders to express forestry-related concerns and to be involved in the planning process. These include Forest Stewardship Plan (FSP)

public reviews, FSP amendments, letters to stakeholders soliciting input, Pesticide Management Plan reviews, field tours, newsletters, and a website.

Table 39 shows that a total of 16 opportunities were provided to the public and stakeholders to express forestry related concerns and to be involved in planning process of the signatories of the Prince George SFMP.

Table 39: Opportunities for Public and Stakeholders to be involved in Planning Processes

Opportunity	Canfor	BCTS	Joint SFMP	TOTAL
FSP Original Ads				
FSP Amendment Ads	1	1		2
FSP Stakeholder Letters	1	1		2
PMP Original Ads	1			1
PMP/NIT Stakeholder letters	1	1		2
PMP Signage	1	1		2
Field Tours				
CNRC Meetings				
Newsletters				
Open Houses			1	1
PAG Meetings			1	1
LRMP Meetings				
Documented Phone Calls	1	1		2
Documented Personal Meetings	1	1		2
BCTS Operating Plan letters		1		1
Expression of interest letters				
Total for DFA*	7	**7**	2	**16**

** This indicator tracks the number of different types of opportunities that the public has to provide input into the planning process, not the total number of opportunities.*

Indicator 39. *(5.1.A.b)* Viewing of Access Plans, Operational Plans and SFMPs

Indicator Statement	*Target and Variance*
Annually provide a viewing of BCTS and Licensee current access plans, general forest planning and operational plans, and Sustainable Forest Management Plans in the DFA.	Target: On or before October 1st of each year Variance: +1 month

Was the Target Met? *Yes*

Forestry roads provide access for industry and the public to large portions of the DFA. Constructing, maintaining, deactivating, and closing these roads is an ongoing process that requires careful planning. Because many non-forestry users of these roads have an interest in their management it is important to provide a viewing of the current access plans of BCTS and Licensees. The input received from such open houses can be used to plan future access management activities.

On Friday, October 15th 2010, Canfor and BCTS held an access viewing at Pine Center Mall, PG, jointly displaying their road access information, which meets the target established for this indicator. In addition, the licensees provided information on general sustainable forest management, the Prince George Public Advisory Group, the Prince George and TFL30 SFMPs and the Prince George and TFL30 SFMP annual reports. Canfor Planning staff from Quesnel and Mackenzie also participated in this event, and were prepared to discuss forest management within those DFA's.

Open House held at the Prince George Pine Centre Mall

Indicator 40. *(5.1.A.b)* Responses to Written Public Inquiries

Indicator Statement	***Target and Variance***
Percentage of timely responses to written public inquiries	Target: 100% Annually Variance: -5%

Was the Target Met? *Yes*

All Licensees and BCTS solicit feedback for their public forest management plans within the DFA. They also receive ongoing general comments and inquiries regarding forestry activities. These inquiries represent a public concern for how forest resources are managed, and as such should receive a timely response by all Licensees. This indicator has defined a timely response as one that is made within 30 days of written inquiry. Comments from the public may be provided in many ways, including written letters, e-mails, or faxes to Licensees and BCTS. There may also be written comment made during an in-person meeting between a Licensee or BCTS staff member and the person providing comment, or a comment written by a Licensee staff member dictated by a member of the public over the phone or in person. Inquiries have now been tracked where a specific access management issue is raised.

The licensees are currently at 100% rate regarding timely responses to written public inquiries.

Table 40: Timely Responses to Written Public Inquiries

Licensee	Total Number of Written Public Inquiries Made	Total Number of Responses Made within 30 days	Number of Specific Access Management Inquiries	% for DFA*
Canfor	21	21	2	
BCTS	5	5	0	
TOTAL	26	26	**2**	**100.0%**

** % = (Number of responses made within 30 days of receipt / total number of public inquiries made) X 100*

Indicator 41. *(5.1.A.b)* Communication Strategies

Indicator Statement	*Target and Variance*
Percentage of communication strategy requirements met	Target: 100% Annually Variance: -5%

Was the Target Met? *Yes*

Licensees and BCTS maintain a list of interested parties that they notify when forestry operations/ developments are to occur. These interested parties may be private landowners, lodge operators, trappers, or hunting guides. Communication strategies are in place to ensure that information is provided to these interested parties in a timely and efficient manner. As sustainable forest management includes non-timber values, it is important that the forest industry works with these individuals to minimize the impact of forest operations and consider their concerns. This indicator is intended to measure the success of meeting communication strategy requirements that are designed to achieve these goals.

As shown in the following table 95.4% of stakeholder and public communication strategy requirements have been met over the reporting period.

Table 41: Communication Strategy Requirements Met

Licensee	Number of Communication Strategies Required	Number of Communication Strategies Completed	% for DFA*
Canfor	308	306	
BCTS	188	167	
Joint	0	0	
TOTAL	**496**	**473**	**95.4%**

** % = (Number of communication strategies completed / total number of communication strategies required) X 100*

Indicator 42. *(5.2.A.a)* Support of North Central Interior Suppliers and Contractors

Indicator Statement	*Target and Variance*
Percent of money spent on forest operations and management in the DFA provided from North Central Interior Suppliers and Contractors	Target: 75% Variance: -5%

Was the Target Met? *Yes*

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

The North Central Interior is defined in this SFMP as the region that includes communities from 100 Mile House to MacKenzie (south to north) and from Smithers to McBride (west to east). The total dollar value of goods and services considered to be local will be calculated relative to the total dollar value of all goods and services used. This calculation will be used to derive the percentage of money spent on forest operations and management of the DFA from suppliers in north central BC.

91.5% of the money spent on forestry operations and management is provided to NCI suppliers/contractors.

Table 42: Forest Operations and Management Provided by NCI Suppliers/Contractors

Licensee	% Money Spent in NCI***	% in DFA
Canfor	96.0%	
BCTS	87.0%	
TOTAL		**91.5%**

**** % Money spent in NCI does not include taxes*

Indicator 43. *(5.3.A.a)* Payment of Taxes

Indicator Statement	*Target and Variance*
Percentage of taxes paid on time to the Government	Target: 100% Variance: 0%

Was the Target Met? *Yes*

Payment of taxes (including Federal, Provincial, and local government taxes) by Licensees and BCTS is a quantifiable indicator of how the public is receiving a portion of the economic benefits derived from forests. It is important to note that Licensees/ BCTS does not control how municipal and other taxes are spent, or whether the public within the DFA receives benefits. However, it should be assumed that a portion of the monies received from taxes would be returned to communities within the DFA.

A query of the financial data stored within the Licensees accounting systems reported that all taxes for the reporting period between April 1, 2010 and March 31, 2011, were paid on time. This includes GST, property tax and corporate taxes and is based on a weighted average by volume billed.

Table 43: Taxes and Stumpage Paid on Time to Governments

Licensee	% Taxes Paid on Time*	Stumpage Paid on Time**	AAC	% in DFA*
Canfor	100	2,771,576	2,438,347	
BCTS	n/a	n/a	0	
TOTAL		2,771,576	2,438,347	100.0%

** This includes GST, property tax and corporate tax only*
*** % = (Weighted by AAC)*

Government organizations such as BCTS do not pay taxes to government.

Indicator 44. *(5.3.A.a)* Stumpage Paid to Government

Indicator Statement	*Target and Variance*
The percent of stumpage paid on time to Government	Target: 100% Variance: 0%

Was the Target Met? *Yes*

The payment of stumpage owing on the timber harvested by Licensees is a quantifiable indicator of how the public in the Prince George DFA is receiving a portion of the economic benefits derived from the forest. Forests provide many ecological benefits to areas that surround them and also generate significant socio-economic benefits. In order to ensure continual sustainable socio-economic conditions for local DFA communities, all stumpage billings are to be paid on time. Each month, the provincial government invoices the Licensees for stumpage. This invoice is directed to the accounting and payroll departments for immediate processing. During the reporting period of April 1, 2010 and March 31, 2011, 100% of stumpage fees were paid on time.

Indicator 45. *(5.3.A.a.iii)* Loss Time Accidents

Indicator Statement	*Target and Variance*
Number of loss time accidents (days) in Woodland Operations	Target: 0 Variance: 0

Was the Target Met? *Yes*

The health and safety of forest workers and members of the public is an important objective that is essential to SFM. All Licensees and BCTS consider employee and public safety as a primary focus for all forestry-related operations. Evidence of this high priority can be seen in various company mission or policy statements. This indicator was developed to track and report out on the number of loss time workplace accidents that occur within the woodlands division of each Licensee and the field operations of BCTS. Activities conducted outside of woodlands operations have been excluded from this indicator; however Licensees and BCTS currently promote safety in all aspects of forest management operations.

Monitoring and reporting the number of workplace loss time accidents will help Licensees identify problems with procedures and increase overall awareness in order to prevent future injuries and accidents. The current status for this measure is derived through an analysis of safety reports and a tally of all loss time accidents.

Table 44 shows the number of loss time accidents reported between April 1, 2010 and March 31, 2011 in the Woodland Operations of the signatory licensees. No loss time accidents for woodlands operations were recorded in reporting year.

Table 44: Number of Loss Time Accidents in Woodlands Operations

Licensee	Number of Loss Time Accidents
Canfor	0
BCTS	0
TOTAL	0

Indicator 46. *(6.1.A.a)* Legally Recognized Treaty Areas

Indicator Statement	*Target and Variance*
No unauthorised forestry activities within legally recognized (Province and Federal) treaty areas.	Target: 100% Variance: 0%

Was the Target Met? Yes

A treaty is a negotiated agreement that spells out the rights, responsibilities and relationships of First Nation peoples and the Federal and Provincial governments (Government of BC, 2005). Depending on the nature of the treaty, specific First Nation people will exercise a variety of rights over the area outlined by the treaty. Any forestry activities that occur in these areas without the permission of the appropriate First Nation peoples could have serious legal, economic, and social repercussions. Respecting Aboriginal treaty rights is part of sustainable forest management as it protects social and economic values. The following First Nation peoples are within the DFA:

- Lheidli T'enneh First Nation
- Lhoosk'uz Dene Nation (Kluskus First Nation)
- McLeod Lake Indian Band
- Nak'azdli Band
- Nazko Band
- Simpcw First Nation (North Thompson)
- Lhtako Dene Nation (formerly Red Bluff Band)
- Saik'uz First Nation
- Halfway River First Nation
- West Moberly First Nations

The Simpcw First Nation (North Thompson) no longer has an interest area overlapping with the DFA, as confirmed with the MFLNRO Prince George District Consultation Coordinator in the Spring of 2011.

Table 45 reflects that no authorized forest operations were conducted within the DFA treaty areas during this reporting period.

Table 45: Forest Activities within Legally Recognized Treaty Areas

Licensee	Total Number of Forest Operations within Treaty Areas				Number of Authorized Forest Activities	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	1	1	1	
BCTS	0	0	0	0	0	
TOTAL	0	0	1	1	1	**100%**

** % = (Number of authorized activities inside legally recognized treaty areas/ total number of activities in treaty areas) X 100*

Indicator 47. *(6.1.A.a)* Forest Stewardship Plan Referral to First Nations

Indicator Statement	*Target and Variance*
All Forest Stewardship Plans (FSP) and associated major amendments are referred to affected Aboriginal bands	Target: 100% Variance: 0%

Was the Target Met? *Yes*

This indicator is designed to evaluate the success of providing opportunities to Aboriginal peoples to be involved in the forest management planning processes. Specifically, all Forest Stewardship Plans and associated major amendments are to be referred to affected Aboriginal bands for their input. Incorporation of First Nation peoples and their unique perspective into the forest planning process is an important aspect of SFM. This indicator will contribute to respecting the social, cultural and spiritual needs of the people who traditionally and currently use the DFA for the maintenance of traditional aspects of their lifestyle.

Licensees and BCTS currently have individual working relationships with local First Nation communities within the DFA. All of these First Nation communities have had the opportunity for participation and input into the SFM planning process. To maintain a high level of participation and response, Licensees/ BCTS have engaged First Nation people, within their communities as they have requested, to provide greater opportunity for involvement in the Prince George SFMP process.

As shown in the following table, during the reporting period, 100% of the required referrals to Aboriginal bands were completed:

Table 46: FSP and Associated Major Amendments Referred to Affected Aboriginal Bands

Licensee	Number of FSP and Associated Major Amendments Completed	Number Referred to Affected Aboriginal Bands	% for DFA*
Canfor	1	1	
BCTS	1	1	
TOTAL	**1**	**1**	**100%**

** % = (Number of FSP and major amendments referred / total number of FSP and major amendments completed) X 100*

Indicator 48. *(6.1.A.a)* Pesticide Management Plan Referrals to First Nations

Indicator Statement	*Target and Variance*
The percentage of Pest Management Plans (PMP) and associated major amendments are referred to affected Aboriginal bands	Target: 100% Variance: 0%

Was the Target Met? *Yes*

This indicator will measure the success of Licensees/ BCTS referrals of all Pesticide Management Plans and associated major amendments, to affected Aboriginal bands. Licensees/ BCTS use a variety of pesticides during the forest management process. The primary objective is to control competing vegetation on regenerated cutblocks. Industrial users of non-high risk class pesticides are required to prepare Pest Management Plans (PMP) that require public consultation as part of the PMP preparation process. Including Aboriginal communities in the planning and communication process is fundamental to recognizing their unique interests in the forest, and an integral part of sustainable forest management. Pesticides may have to be used within the DFA to meet certain forestry objectives and Pest Management Plans outline the details of use. Use

may include areas of interest to various First Nation groups and then referral of plans for input is required. The location and type of pesticide use may change as a result of their consultation.

Canfor's 2011 PMP was prepared in the Fall of 2010 for a term from 2011-2016. In January 2011, Canfor referred the 2011 PMP to the applicable First Nations bands to allow for a review. In addition, Canfor placed ads in the local paper providing the public (including First Nations) an opportunity to review and provide comment.

BCTS will refer its PMP in the 2011/12 reporting period.

Indicator 49. *(6.2.A.a)* Cultural Heritage Requirements

Indicator Statement	*Target and Variance*
The percentage of forest operations consistent with cultural heritage requirements as identified in operational plans	Target: 100% annually Variance: 0%

Was the Target Met? *Yes*

Protection of cultural heritage values assures identification, assessment and their availability for future generations. A cultural heritage value is a unique or significant place or feature of social, cultural or spiritual importance. It may be an archaeological site, recreation site or trail, cultural heritage site or trail, historic site or a protected area. Cultural heritage values often incorporate First Nation's heritage and spiritual sites, but they can also involve features protected and valued by non-aboriginal people. Maintenance of cultural heritage values is an important aspect to sustainable forest management because it contributes to respecting the social and cultural needs of people who traditionally and currently use the DFA for a variety of reasons.

Forest plans have used an Archaeological Predictive Model to assess the potential presence of archaeological resources within proposed harvest areas or road access corridors. Where activities are proposed within zones of high archaeological potential, Licensees and BCTS conduct site level Archaeological Evaluations (AE) to identify, assess and record any archaeological resources that may be present. Once a strategy to conserve cultural heritage values is included within an operational plan, there is a legal obligation for the licensee to implement and adhere to the strategy. Post harvest and subsequent silviculture inspections ensure that these strategies are implemented as stated in the operational plan.

As shown in the table below, 100% of forest operations conducted between April 1, 2010 and March 31, 2011 within the DFA are consistent with cultural heritage requirements. See indicator 35 for information on this issue.

Table 47: Forest Operations Consistent with the Cultural Heritage Requirements

Licensee	Number of Forest Operations with Cultural Heritage Requirements				Total with Cultural Heritage Requirements Met	% for DFA *
	Roads	Harvesting	Silviculture	Total		
Canfor	0	24	4	28	28	
BCTS	0	7	0	7	7	
TOTAL	**0**	**31**	**4**	**35**	**35**	**100%**

** % = (Operations completed in accordance with cultural heritage requirements / total operations completed) X 100*

Indicator 50. *(6.2.A.a)* Heritage Conservation Act

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

Was the Target Met? *Yes*

The *Heritage Conservation Act*'s stated purpose is "to encourage and facilitate the protection and conservation of heritage property in British Columbia". The act prohibits activities that will damage specific heritage resources. There are many heritage resources in the DFA that are protected by the Act. Some of the more common features that are of concern to forestry operations are culturally modified trees, cache pits and pit house sites. Measures must be taken to ensure forest operations are consistent with the Heritage Conservation Act to preserve and manage these features to meet social and cultural needs of First Nation people and the broader community within the DFA.

Known features protected under the Act are relatively easy to plan forest operations around. Forest Development Plans also use an Archaeological Predictive Model to assess the potential for archaeological resources within proposed harvest areas or road access corridors. Where activities are proposed within zones of high archaeological potential, Licensees/ BCTS conduct site level Archaeological Impact Assessments (AIA) to identify, assess and record any archaeological resources that may be present. Trained archaeologists identify resources that are to be protected under the Heritage Conservation Act.

As shown in the table below, 100% of forest operations conducted between April 1, 2010 and March 31, 2011 within the DFA were consistent with Heritage Conservation Act (see Indicator 35 for information on cultural heritage).

Table 48: Forest Operations Consistent with the Heritage Conservation Act

Licensee	Number of Forest Operations within Sites Protected under the Heritage Conservation Act (pre-1846)				Activities in Compliance with the Act	% for DFA *
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	
BCTS	0	3	0	3	3	
TOTAL	**0**	**3**	**0**	**3**	**3**	**100%**

** % = (Operations completed in accordance with the Heritage Conservation Act/ total operations completed) X100*

Indicator 51. *(6.3.A.a)* PAG Satisfaction with Public Participation

Indicator Statement	*Target and Variance*
Percentage of PAG (Public Advisory Group) satisfaction with public participation process	Target: 100%-a rank of 5 (very good) for all meetings Variance: -20% (a rank of 4)

Was the Target Met? *Yes*

The PAG is one of the key elements of public involvement in the SFM process. The Prince George PAG provided guidance, input and evaluation during development of the SFMP. It is also instrumental in maintaining links to current local values and forest resource uses within the DFA. Therefore, it is important that the Licensees and BCTS have a positive and meaningful working relationship with the PAG, where the Licensees/ BCTS is able to respond to all issues and concerns the PAG may have during this process. This indicator will use an average from the PAG meeting evaluation forms to determine the level of PAG satisfaction with the public participation process.

At the end of each of the 8 PAG meetings held during the reporting period, PAG participants completed formal meeting evaluations. A number of questions were asked under three general headings: 1) Meeting and PAG Progress, 2) Facilitator, and 3) Meeting Logistics. In addition to the questions, the participants were asked to provide suggestions and comments. The meeting evaluations included the question "Are you satisfied with the PAG process?" to which the overall average response was 4.1. This translates as a "good" ranking, with 5 being very good, the highest possible rating.

Table 49: PAG Satisfaction with the Public Participation Process

Prince George Sustainable Forest Management Plan Public Advisory Group	Score	% (score / 5)
Question MQ 11 - Are you satisfied with the PAG process?	4.2	**84.0%**

Indicator 52. *(6.3.A.a)* PAG Terms of Reference

Indicator Statement	*Target and Variance*
PAG (Public Advisory Group) Terms of Reference reviewed per year	Target: ≥1 Variance: 0

Was the Target Met? *Yes*

The Terms of Reference document is an important part of the public participation component as it lays out the mutually agreed upon procedures, participants, communication strategies, responsibilities and conduct of the PAG members. The document is intended to provide the necessary framework and proper protocol to ensure the existence of a relevant and functioning PAG. SFM requires public participation and the PAG Terms of Reference ensures these requirements are met, in a credible and transparent fashion. The initial Terms of Reference document was developed by the PAG and accepted as part of the SFMP process on December 9th, 2004. The PAG Terms of Reference is to be reviewed annually to ensure it is up to date with the present day context of SFM. The Licensees and BCTS are responsible for ensuring that PAG members are given adequate notice as to when the Terms of Reference document will be reviewed. This review is part of a scheduled PAG meeting so that all participants are aware of review timelines. The Licensees/ BCTS maintain the Terms of Reference (ToR) document so that any revisions resulting from an annual review will be made and the new document will be distributed to PAG members.

The PG and TFL30 PAGs were merged in the Fall of 2010. The new PAG reviewed the ToR at its October 7th 2010 meeting.

Indicator 53. *(6.3.A.a)* Number of PAG Meetings

Indicator Statement	*Target and Variance*
The number of Public Advisory Group (PAG) meetings per year	Target: ≥3 Variance: -1

Was the Target Met? *Yes*

The Prince George PAG is made up of a diverse set of representatives that have various defined interests, values or specific uses of the forest resource within the DFA. The PAG provided valuable input with the initial development of values, indicators, measures and targets for the SFMP. PAG members helped to identify local issues and values for the Prince George DFA for forestry managers to consider during the management and planning processes. The PAG will continue to provide guidance, input and evaluation throughout the SFMP process, including all aspects of implementation and continual improvement of the plan over time. PAG participation with the SFMP will also help to demonstrate the achievement of the public participation requirements, which are part of the CSA performance audit requirements.

Table 50: Number of Public Advisory Group Meetings in 2010/11

Meeting	Number of Meetings
Field Tour	0
General PAG Meeting	8
2010/11 Total	**8**

Indicator 54. *(6.3.A.a)* Public Sector Participation in the PAG

Indicator Statement	*Target and Variance*
Percentage of the public sectors as defined in the Terms of Reference invited to participate in the Public Advisory Group (PAG) process	Target: 100% Annually Variance: 0%

Was the Target Met? *No*

What Happened: *2 of the 22 sectors on the PAG were not represented during the reporting period; letters of invitation were not sent to solicit representatives for these sectors during the reporting period.*
Root Cause: *Due to changes to PAG sectors and Licensee Steering Committee representatives, there was a lack of awareness of the need to invite reps from these unrepresented sectors.*
Action Plan: *Licensee steering committee to send invitations to potential representatives for unrepresented sectors during the 2011/12 reporting period.*

The Prince George PAG is comprised of a variety of representatives that have various defined interests, values or specific uses of the forest resource within the DFA. An important component of the PAG is the representation from the various public sectors as defined in the Terms of Reference.

Their involvement in the PAG process is crucial to the success of the SFMP as they represent a broad range of interests, both commercial and non-commercial, within the DFA. They also possess experience and expertise that Licensees/ BCTS can draw from to achieve sustainable forest management objectives. Their participation will enhance the co-operation between the forest industry and other parties interested in the management of public lands within the DFA to meet the social, economic, and ecological goals of sustainable forest management.

This indicator monitors the efforts made to encourage public sector participation by tracking the percentage of public sectors, as defined in the Terms of Reference, which were invited to participate in the PAG process. The PAG provides the opportunity for participation through such invitations.

The PG and TFL30 PAGs merged during the reporting period. At the October 7th 2010 PAG meeting, the new Terms of Reference was reviewed and a new sector list was developed with PAG endorsement. There was some movement amongst PAG members and sectors during the reporting period, but two sectors were not represented at any time during the period (Union/Labour and Non-Renewable Resources).

Table 51: Public Sectors Invited to Participate in the PAG Process

Number of Sectors with a Representative Identified	20
Number of Sectors with No Representative, with invitations on file	0
Total number invited	20
Number of Public Sectors in Terms of Reference (ToR)	22
% of Public Sectors Invited*	91%

* % = (Number of sectors with representation or invitations on file / number of sectors in ToR) X 100

Indicator 55. *(6.4.A.a)* PAG Satisfaction with Information Presented for Decision Making

Indicator Statement	*Target and Variance*
Percentage of PAG satisfaction with amount and timing of information presented for informed decision making	Target: 100% Variance: -20%

Was the Target Met? *Yes*

The PAG is one of the key elements of public involvement in the SFM process. The Prince George PAG provided guidance, input and evaluation during the SFMP development. It is also instrumental in maintaining links to current local values and forest resource uses within the DFA. In order for the PAG to make informed decisions with regard to the SFMP, such as indicators, targets, and levels of responsibility, they must have the background information to support those decisions. This information must be sufficient in quantity, quality and delivered in a timely manner to the PAG to facilitate sound decision making as part of the SFMP process.

This indicator is intended to measure and report the level of satisfaction the PAG members have with the amount and timing of information presented for informed decision-making. While it is hoped that there will be high satisfaction with the provision of background information, it is also acknowledged that with any group of diverse backgrounds and opinions it is difficult to achieve unanimous satisfaction. However, if the SFMP is to succeed, the people who are involved must have a certain level of satisfaction with the information they are using to direct the SFMP development.

Two questions on the PAG meeting evaluation forms address this indicator: MQ12 – "How timely was the information?" and MQ13 – "How satisfied were you with the information?". The feedback on these two questions was tracked at the PAG meetings during the reporting period; as illustrated in Table 52, both targets were met.

Table 52: PAG Satisfaction with the Information Presented for Informed Decision-Making

Prince George SFMP PAG	Score (of 5)	% *
Question MQ 12 - How timely was the information?	4.2	84%
Question MQ 13- How satisfied were you with the information?	4.5	90%

** % = Score / # of meeting evaluations*

Indicator 56. Active Watershed Risk Evaluation

Indicator Statement	*Target and Variance*
The percent of active watersheds with PFI greater than the minimum threshold that have had a watershed risk evaluation completed.	Target: 100% Annually Variance: -10%

Was the Target Met? *Yes*

A watershed is an area of land that contributes water to the flow of a stream or river. With regards to the conservation of water quality in the DFA, it is important to be able to maintain the watershed level conditions within natural ranges of variation to ensure that other users of water are not adversely affected. The peak flow index provides a method to forecast and evaluate the potential effects of future harvesting plans, and to ensure that these harvested areas do not contribute to the degradation of the water resource.

Watersheds in the northern interior of British Columbia have a wide range of sensitivity to peak flows. The sensitivity of a watershed can be evaluated by examining five parameters; peak flow buffering (lakes and wetlands), terrain stability, watershed relief, channel pattern and channel stability. The watershed risk evaluation essentially reviews these five parameters.

As indicated in the SFMP, the licensees and BCTS have committed to reporting out on the number of active watersheds in the DFA.

Table 53: Active Watersheds with Risk Evaluation Completed

Licensee	Total Number of active watersheds exceeding PFI target or PFI > 30	Number of watersheds that have had a risk evaluation completed	DFA%
Canfor	31	34	
BCTS	0	0	
TOTAL	**31**	**34**	**91%**

Indicator 57. Watersheds Assessed by Qualified Professional

Indicator Statement	*Target and Variance*
The percent of active high risk watersheds that are assessed by a qualified professional	Target 100% Variance 0%

Was the Target Met? *No*

For those watersheds in the DFA with PFIs higher than the threshold, a risk evaluation is required before operations commence. Licensees/ BCTS will develop systems to monitor future planned harvesting to ensure that evaluations are completed. Planners will be primarily responsible for conducting risk evaluations. Evaluations may be conducted using several sources of information such as aerial photography, contour maps and hydrologic maps of the area. Forest cover and past and proposed harvesting will also be used. Much of this information is in a digital form available for use in Geographic Information Systems (GIS). GIS analysis may aid in calculating some of the risk parameters. Licensees and BCTS intend to share information about recent harvesting where more than one licensee's operations are conducted in a watershed.

Table 54: Watersheds assessed by a Qualified Professional

Licensee	Total number Active High Risk Watersheds	Number of these active high risk watersheds that have been assessed by a qualified professional	DFA%
Canfor	2	0	
BCTS	0	0	
TOTAL	**2**	**0**	**0%**

% = (Number of sectors with representation or invitations on file / number of sectors in ToR) X 100

Canfor Discussion:

Two of Canfor's active watersheds are currently deemed to be high risk. One of these watersheds ("Unknown 44") was slightly over the target (by 2.6%) and was also impacted by a wildfire after the block was planned. The other watershed ("Unknown 46") was over and did not have an assessment. Both these watersheds were heavily impacted by the mountain pine beetle (MPB).

Canfor's Planning staff have reviewed the past and planned level of harvest in conjunction with extenuating circumstances, such as the heavily impacted stands by MPB. The forecast is for declining Peak Flow Indices. Reforestation of the areas within this watershed has the potential to accelerate this watershed's PFI trend towards the target more quickly than if the watershed was left to recover without intervention.

Indicator 58. Operations Consistent with Professional Watershed Recommendations

Indicator Statement	*Target and Variance*
Percent of active operations within high-risk watersheds that are consistent with recommendations of Hydrologic assessments.	Target 100% Variance 0%

Was the Target Met? No

A qualified registered professional in forest hydrology should complete a detailed hydrologic assessment. This would typically be a professional engineer, geoscientist or professional forester with demonstrated knowledge and experience in forest hydrology. The assessment procedure would include an office review of the data assembled for the watershed sensitivity analysis and a review of the Peak Flow Index. This may also include a field review and review of other data available (PEM, VRI, etc.). The assessment should conclude with a final report and recommendations for each watershed.

Table 55: Operations Consistent with Professional Watershed Recommendations

Licensee	Total number of operations within high risk watersheds	Number of these operations that were consistent with the recommendations of a qualified professional	DFA%
Canfor	2	0	
BCTS	0	n/a	
TOTAL	**2**	0	0%

Canfor / BCTS Discussion:

The two watersheds listed under the previous indicator did not have a professional assessment (as per above comments) and therefore this indicator was not met.

Indicator 59. Compliance with Species at Risk and Sites of Biological Importance Management Strategies

Indicator Statement	*Target and Variance*
Percentage of forest operations that adhere to licensee specific management strategies for: • Species at Risk (plants, plant communities, and Important wildlife, fish, and bird species; and, • Sites of Biological Significance	Target: 100% Variance: -5%

Was the Target Met? *Yes*

This indicator evaluates the success of implementing specific management strategies for Species at Risk and Sites of Biological Importance 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.

Licensees and BCTS must ensure:

- Key staff are trained in SAR and Sites of Biological Importance identification;
- SAR listings are reviewed and management strategies are updated periodically
- Implementation of strategies are carried out through operational plans;
- Report out annually to the Public and submit all sightings and occurrences to the BC. Conservation Data Center

All Licensees and BCTS 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.

Table 56: Forest Operations Consistent with Species and Risk and Sites of Biological Importance

Licensee	Number of Forest Operations with Species at Risk and Sites of Biological Importance Management Strategies				Forest Operations Consistent with Identified Strategies	% in DFA*
	Roads	Harvesting	Silvi-culture	Total		
Canfor	0	8	0	8	8	
BCTS	0	0	0	0	0	
TOTAL	**0**	**8**	**0**	**8**	**8**	**100%**

% = (# of operations in accordance with identified strategies/ total operations with Species at Risk management strategies) X 100

Table 57: Trained Personnel - Species and Risk and Sites of Biological Importance

Was the Target Met? *Yes*

Licensee	Percentage of Appropriate Personnel Trained	*Target and Variance*
Canfor	100%	Target: 100%
BCTS	100%	Variance: 10%
TOTAL	**100%**	

APPENDIX 1.0: NDU Merged BEC Descriptions and Maps

Natural Disturbance Unit (NDU)	NDU/ Merged BEC	Description
Boreal Foothills	A1	Boreal Foothills - Mountain ESSFmv 2
McGregor	A2	McGregor Plateau ESSFwk 2
McGregor	A3	McGregor Plateau SBS mk 1
McGregor	A4	McGregor Plateau SBS wk 1
Moist Interior	A5	Moist Interior - Mountain ESSFmv 3
Moist Interior	A6	Moist Interior - Mountain ESSFwk 1
Moist Interior	A7	Moist Interior - Plateau SBS mh
Moist Interior	A8	Moist Interior - Plateau SBS mc 2
Moist Interior	A9	Moist Interior - Plateau SBS mw
Moist Interior	A10	Moist Interior - Plateau SBS wk 1
Moist Interior	A11	Moist Interior - Plateau SBS dw 2
Moist Interior	A12	Moist Interior - Plateau SBS dw 3
Moist Interior	A13	Moist Interior - Plateau SBS mk 1
Wet Mountain	A14	Wet Mountain ESSFwk 2
Wet Mountain	A15	Wet Mountain ESSFwc 3
Wet Mountain	A16	Wet Mountain SBS wk 1
Wet Mountain	A17	Wet Mountain SBS vk
Wet Trench	A18	Wet Trench - Mountain ESSFwcp
Wet Trench	A19	Wet Trench - Mountain ESSFwk 2
Wet Trench	A20	Wet Trench - Mountain ESSFwc 3
Wet Trench	A21	Wet Trench - Mountain ESSFwk 1
Wet Trench	A22	Wet Trench - Valley ICH wk 3
Wet Trench	A23	Wet Trench - Valley ICH vk 2
Wet Trench	A24	Wet Trench - Valley SBS wk 1
Wet Trench	A25	Wet Trench - Valley SBS vk