# **Prince George**

Sustainable Forest Management Plan



# 2006/07 Draft Annual Report









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## 1.0 Introduction

This is the second Annual Report of the Prince George Sustainable Forest Management Plan. It covers the reporting period of April 1, 2006 to March 31, 2007. The Sustainable Forest Management Plan (SFMP) is a result of the combined efforts of four major licensees and British Columbia Timber Sales (BCTS) to achieve and maintain Canadian Standards Association (CSA) certification to the CSA Z809-02 standard. The signatories to the plan are:

- 1. BC Timber Sales, Prince George Business Area
- 2. Canadian Forest Products Ltd., Prince George Operations
- 3. Carrier Lumber Ltd.
- 4. Lakeland Mills Ltd.
- 5. Winton Global Lumber Ltd.

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/ 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, 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 signatory's 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

DFA - Defined Forest Area

MoFR - Ministry of Forest and Range

NDU - Natural Disturbance Unit

PAG - Public Advisory Group

PG - Prince George

PG TSA - Prince George Timber Supply Area

SAR – Species at Risk

SFM – Sustainable Forest management

SFMP – Sustainable Forest management Plan

## 1.2 Executive Summary

Of the 55 unique indicators listed in Table 1. Forty-five indicators were met within the prescribed variances, 2 indicators are pending due to future targets or outstanding licensee information and 8 indicators were not met within the prescribed variances. A corrective and preventative action plan is contained in the indicator discussions for each non-conformance indicator.

Table 1: Summary of Indicator Status, April 1, 2006 to March 31, 2007.

No	Indicator Number	Cross Reference	Indicator Description	Target Met	Pending	Target Not Met
1	1.1A.a.i	2.1.A.a.i	Old forest	X		
2	1.1A.a.ii	2.1.A.a.ii	Old interior forest	X		
3	1.1A.a.iii	2.1.A.a.iii	Young patch size distribution	Х		
4	1.1A.a.iv	1.3.A.a.i	Landscape level biodiversity reserves	X		
5	1.1A.a.v	1.3.A.b.i	Stand level retention – average and minimum			X
6	1.1A.a.vi	2.1.A.a.v	Wet Trench patch size	X		
7	1.1.A.a.vii		Coarse Woody Debris Levels	X		
8	1.2.A.a.i	2.2.A.a.i	Species Diversity and Ecosystem Productivity:	x		
9	1.2.A.a.ii		SAR training	X		
10	1.2.A.a.iii		Develop SAR management strategies	Х		
11	1.2.A.a.iv		Following SAR management strategies	Х		
12	1.2.A.a.v		SP review by SAR trained person			Х
13	1.2.A.a.vi		% SP with SAR management strategies	Х		
14	1.3.A.b.ii		Chief Foresters Seed use standards			Х
15	1.4.A.A.i		Biological significance training	Х		
16	1.4.A.a.ii		Develop Bio significance strategies	Х		
17	1.4.A.a.iii		Following Bio significance strategies	Х		
18	1.4.B.a.i		Trespass in 1.1.A.a.iv (landscape res.)	Х		
19	2.1.A.a.iv		Planting consistent with plans	Х		
20	3.1.A.a.i		Soil conservation	Х		
21	3.1.A.a.ii	4.2.A.a.i	% roads on cut blocks	Х		
22	3.1.A.a.iii		Terrain Management requirements	Х		
23	3.1.A.a.iv		Legally reportable spills	Х		
24	3.2.A.a.i		Riparian management requirements			Х
25	3.2.A.a.ii		Erosion control plans at crossings	Х		
26	3.2.A.a.iii		Unnatural sediment occurrences	Х		
27	3.2.A.a.iv		Maintain natural stream flow at crossings	Х		
28	3.2.A.a.v	4.1.A.a.i 5.1.A.a.ii	Forest Continuity	Х		
29	3.2.A.a.vi		Peak Flow Index			Х
30	4.1.A.a.ii		Free to Grow			Х
31	4.1.A.a.iii		Stand Damaging agents	Х		
32	4.2.A.a.ii		% of roads in THLB	Х		
33	5.1.A.a.i		Cut control	Х		
34	5.1.A.iv		Forest industry fires	Х		
35	5.1.A.b.i		Non-Timber Benefits:			x
36	5.2.A.b.ii		Wood products produced	X		

No	Indicator Number	Cross Reference	Indicator Description	Target Met	Pending	Target Not Met	
37	5.1.A.b. iii	5.2.A.a.ii	Wood Volume openly tendered	X			
38	5.1.A.b.iv		Number of public opportunities	Х			
39	5.1.A.b.v		Access plan viewing opportunity	Х			
40	5.1.A.b.vi		Number of written responses		Х		
41	5.1.A.b.vii		Number of communication strategies		Х		
42	5.2.A.a.i		% spent on local businesses	Х			
43	5.3.A.a.i		Taxes paid on time	Х			
44	5.3.A.a.ii		Stumpage paid on time	Х			
45	5.3.A.a.iii		Lost time accidents				
46	6.1.A.a.i		Respect treaty areas X				
47	6.1.A.a.ii		Referral of FSP's to FN				
48	6.1.A.a.iii		Referral of PMP's to FN				
49	6.2.A.a.i		Cultural heritage requirements	X			
50	6.2.A.a.ii		Heritage conservation Act requirements	Х			
51	6.3.A.a.i		PAG satisfaction with process	Х			
52	6.3.A.a.ii		PAG ToR review	X			
53	6.3.A.a.iii		# of PAG meetings	X			
54	6.3.A.a.iv		% of public sectors invited to PAG	Х			
55	6.4.A.a.i		Satisfaction with timing and amount of	х			
			information	^			
			Totals	45	2	8	

# 1.3 SFM Performance Reporting

This annual report will describe the success of the licensees 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 their traditional operating areas as well as the performance which 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, Carrier Lumber Ltd. operates under a non-replaceable forest license (FLA70174). Carrier Lumber Ltd. and BCTS have shared management responsibilities for developing and harvesting blocks on this license. BCTS and Carrier Lumber are committed to work together and co-operate to fulfill and achieve the SFMP objectives on this license.

## 2.0 SFM Indicators, Targets and Strategies

## 1.1.A.a.i | 2.1.A.a.i Old Forest by Natural Disturbance Unit

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

This indicator is intended to quantify the amount of the landscape occupied by "old forests" at a point in time. 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 Objective 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.

Table 2: Old Forest by Natural Disturbance Unit Merged BEC

Natural	NDU /	Total CFLB	OLD Forest Threshold		(	Current Status	as of Marc	h 31, 2007
Disturbance Unit (NDU)	Merged BEC <sup>1</sup>	(ha)	%	Hectares	% of CFLB	Hectares	Surplus / Deficit	Licensee Action
Boreal Foothills	A1	7,255	33%	2,394	54%	3,917	1,523	No Action
McGregor	A2	10,349	26%	2,691	51%	5,264	2,845	No Action
McGregor	А3	71,779	12%	8,613	35%	25,291	14,290	No Action
McGregor	A4	219,256	26%	57,007	28%	62,249	4,538	Watch
Moist Interior	A5	12,396	29%	3,595	45%	5,567	883	Watch
Moist Interior	A6	16,417	29%	4,761	50%	8,240	4,418	No Action
Moist Interior	A7	5,928	17%	1,008	35%	2,075	1,142	No Action
Moist Interior	A8	9,145	12%	1,097	42%	3,835	1,644	No Action
Moist Interior	A9	33,443	12%	4,013	18%	5,972	1,555	Watch
Moist Interior	A10	39,088	17%	6,645	38%	14,782	8,080	No Action
Moist Interior	A11	128,566	12%	15,428	28%	35,841	17,867	No Action
Moist Interior	A12	179,032	12%	21,484	26%	46,309	22,409	No Action
Moist Interior	A13	370,589	12%	44,471	30%	110,623	54,533	No Action
Wet Mountain	A14	154,009	50%	77,005	86%	132,829	57,483	No Action
Wet Mountain	A15	27,832	84%	23,379	87%	24,181	1,607	Watch
Wet Mountain	A16	33,914	26%	8,818	39%	13,342	5,117	No Action
Wet Mountain	A17	114,673	50%	57,337	70%	80,182	22,402	No Action
Wet Trench	A18	33,997	80%	27,198	94%	31,893	4,923	Watch
Wet Trench	A19	65,010	48%	31,205	85%	55,288	23,773	No Action
Wet Trench	A20	98,712	80%	78,970	91%	89,340	10,829	No Action
Wet Trench	A21	114,753	48%	55,081	59%	67,343	13,186	No Action
Wet Trench	A22	27,176	53%	14,403	69%	18,713	4,554	No Action
Wet Trench	A23	145,660	53%	77,200	64%	92,772	15,526	No Action
Wet Trench	A24	131,802	30%	39,541	30%	38,882	275	Approved Recruitment Strategy in place
Wet Trench	A25	152,701	46%	70,242	47%	71,362	2,074	Watch / Develop Recruitment Strategy
Totals		2,203,482	33%	733,586	47%	1,046,107	295,730	

Source: March 31, 2007 LOWG Analysis Results

<sup>1</sup> See Appendix 1 for BEC description and NDU / Merged BEC Maps

**Indicator Discussion:** As shown in the table above, all units with the exception of A24 have a surplus of old forest as of March 31, 2007. A24 is currently in deficit in old forest amounts by 659 hectares. A24 currently has a recruitment strategy developed by licensees and approved by government. With an approved recruitment strategy in place for A24 and all other unit in surplus of old forest, this indicator meets the target. Several units have been identified with a watch action in order to ensure forest development planning and operations meet the intent of the Landscape Biodiversity Order in the PG TSA.

## 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	Target: As per the "Landscape Biodiversity Objectives for the PG TSA"
NDU/ merged BEC within the DFA.	Variance: 0%

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 3 below.

Table 3: Old Interior Forest by Natural Disturbance Unit merged BEC

Natural NDU / Old Fores		Old Forest	Inrespoid		Current Status as of March 31, 2007				
(NDU)	BEC	(ha)	% Hectares		%	Hectares	Surplus / Deficit	Licensee Action	
Boreal Foothills	A1	2,394	40%	958	164%	3,917	2,959	No Action	
McGregor	A2	2,691	40%	1,076	170%	4,569	3,495	No Action	
McGregor	А3	8,613	25%	2,153	113%	9,769	6,404	No Action	
McGregor	A4	57,007	10%	5,701	49%	27,961	22,226	No Action	
Moist Interior	A5	3,595	40%	1,438	102%	3,656	581	Watch	
Moist Interior	A6	4,761	40%	1,904	102%	4,855	3,463	Watch	
Moist Interior	A7	1,008	10%	101	142%	1,430	1,433	Watch	
Moist Interior	A8	1,097	25%	274	174%	1,914	1,019	Watch	
Moist Interior	A9	4,013	10%	401	58%	2,331	1,722	Watch	
Moist Interior	A10	6,645	25%	1,661	115%	7,649	5,942	No Action	
Moist Interior	A11	15,428	25%	3,857	74%	11,413	6,864	No Action	
Moist Interior	A12	21,484	10%	2,148	101%	21,683	17,905	No Action	
Moist Interior	A13	44,471	25%	11,118	119%	52,879	40,102	No Action	
Wet Mountain	A14	77,005	40%	30,802	164%	126,217	96,938	No Action	
Wet Mountain	A15	23,379	40%	9,352	101%	23,633	15,175	No Action	
Wet Mountain	A16	8,818	25%	2,204	97%	8,584	7,127	No Action	
Wet Mountain	A17	57,337	25%	14,334	105%	60,445	43,144	No Action	
Wet Trench	A18	27,198	40%	10,879	114%	30,872	20,203	No Action	
Wet Trench	A19	31,205	40%	12,482	165%	51,539	38,020	No Action	
Wet Trench	A20	78,970	40%	31,588	104%	82,505	51,291	No Action	
Wet Trench	A21	55,081	40%	22,033	85%	46,827	24,998	No Action	
Wet Trench	A22	14,403	40%	5,761	77%	11,124	5,097	No Action	
Wet Trench	A23	77,200	40%	30,880	86%	66,670	35,451	No Action	
Wet Trench	A24	39,541	10%	3,954	41%	16,227	12,833	No Action	
Wet Trench	A25	70,242	25%	17,561	65%	45,366	26,667	No Action	
Totals		733,586	31%	224,620	99%	724,028	490,496		

Source: March 31, 2007 LOWG Analysis Results

**Indicator Discussion:** As shown in the table above, all units have a surplus of interior old forest as of March 31, 2007. With all units in surplus of interior old forest, this indicator meets the target. Five units (A5, A6, A7, A8 & A9) within the moist interior natural disturbance zone have been identified to watch closely over the next year to ensure interior old forest amounts don't go below the threshold limits.

## 1.1A.a.iii | 2.1.A.a.iii Young Patch Size Distribution

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

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 from 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).

The table below shows the updated current status of young patch size distribution as of March 31, 2005

			us as of Ma	Stribution as of Water 51, 2000		
PATCH SIZE				, ,	-	Future Patch Size Trending
	< 50	50-100	100 - 1000	> 1000	Total	
Moist Interior Plateau Target	5%	5%	20%	70%	100%	Trend towards larger blocks in order to
PG (ha)	7,059	8,845	13,675	69,602	99,181	reduce the percentage of smaller blocks.
PG (%)	7.1%	8.9%	13.8%	70.2%	100.0%	
Moist Interior Mtn Target	40%	30%	10%	20%	100%	
PG (ha)	359	1,238	2,035	1,643	5,275	Trend towards smaller blocks in order to
PG (%)	6.8%	23.5%	38.6%	31.2%	100.0%	reduce the percentage of larger blocks.
McGregor Plateau Target	10%	5%	45%	40%	100%	Trend towards the midsized blocks.
PG (ha)	5,411	11,952	19,818	28,538	65,719	
PG (%)	8.2%	18.2%	30.2%	43.4%	100.0%	
Wet Trench Valley Target	20%	10%	60%	10%	100%	Trend towards the smallest and mid-sized
PG (ha)	7,215	12,823	28,925	71,308	120,271	blocks and away from the largest blocks.
PG (%)	6.0%	10.7%	24.0%	59.3%	100.0%	
Wet Trench Mtn Target	20%	10%	60%	10%	100%	Trend towards the smallest and mid-sized
8463)PG (ha)	2,106	6,183	6,197	34,470	48,956	blocks and away from the largest blocks.
PG (%)	4.3%	12.6%	12.7%	70.4%	100.0%	
Wet Mtn Target	20%	10%	60%	10%	100%	Trend towards the smallest and mid-sized
PG (ha)	3,063	6,513	13,103	5,584	28,262	blocks and away from the largest blocks.
PG (%)	10.8%	23.0%	46.4%	19.8%	100.0%	

**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 take most patch size distributions toward targets, others will actually be further from achieving objectives due to previous harvesting patterns and the effects of the massive infestation of mountain pine bark beetle. This indicator has a five-year measurement

criterion as established in the PG TSA LOWG Reporting Protocol. The next reporting date is scheduled for the spring of 2010.

## 1.1.A.a.iv | 1.3.A.a.i | 2.2.A.a.v Landscape Level Biodiversity Reserves

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

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. 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 2006 to March 31 2007 in the following table and has not changed from the previous reporting period. These areas will be updated after the next Timber Supply Review, which is scheduled for sometime in 2008/09.

Table 4: The Amount of Landscape Level Biodiversity Reserves within the DFA

Landscape	Reserve	Total Reserve Area in the PG District (ha)
<b>Protected Areas &amp;</b>	Parks	256,295
Old Growth	Dome	31,780
Management	Slim	56,310
Areas	Humbug	35,487
<b>Herrick Old Growt</b>	h Reserve	4,481
<b>Crown Land Plan</b>	Reserves	45,324
Caribou High		94,468
Total		524,145

Source: 2001 Timber Supply Review

## 1.1.A.a.v | 1.3.A.b.i Stand Level Retention

Indicator Statement	Target and Variance
The average percentage of stand level retention in	Target: >7% annually within the DFA, with a minimum
harvested areas within the DFA	of 3.5% by block and no maximum %.
	Variance: 0%

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.

Within the DFA each Licensee and BCTS manages stand level retention for each cut block. Retention levels in each block is 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, 2006 and March 31, 2007 in the DFA is found in Table 5.

Table 5: Stand Level Retention in Harvested Areas

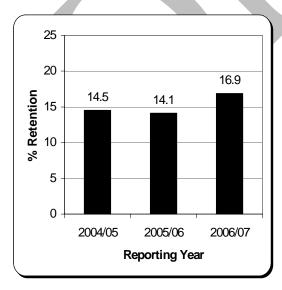
Licensee	Net Area Harvested (ha)*	Associated Total Retention	Average % Retained **	Total Number of Blocks	Blocks Achieving 3.5% Min. ***	% of Blocks Achieving 3.5% Minimum
Canfor	7,714.5	1,461.2	15.9%	94	94	100.0%
Winton Global	1,420.8	434.7	23.4%	25	25	100.0%
Lakeland Mills	1,039.8	216.8	17.3%	24	24	100.0%
BCTS	1,283.3	217.9	14.5%	21	19	90.5%
BCTS (FLA70174)	1,147.5	220.5	16.1%	13	13	100.0%
Carrier	979.2	207.9	17.5%	7	7	100.0%
TOTAL	13,585.1	2,759.0	16.9%	184	182	98.9%
Target			<u>&gt;</u> 7%			100.0%
Variance			0.0%			0.0%

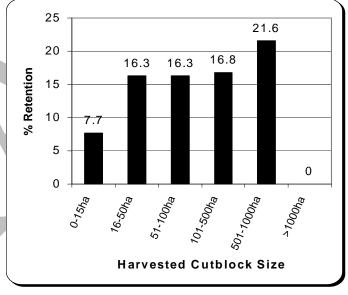
<sup>\*</sup> Only blocks >15 ha with completed harvesting measured

As shown in the following figure, the average % retention in harvested areas within the DFA during this reporting period is generally increasing with block size.

Indicator Discussion: Of the 21blocks harvested by BCTS during this reporting period, two blocks did not meet the minimum block retention target of 3.5%. These blocks were part of a three-block birch sale that was awarded in 2004 and harvest completed in 2006. The layout and site plan for these blocks were completed in 2001. One of the three blocks has 6.7ha retention while the other two blocks have none. The retention for the three blocks together is 6.7 ha or 6.1 %.

BCTS is reviewing its business process for stand level retention to avoid this from occurring in the future.





The average % retention of 16.9 in harvested areas within the DFA is highest in this reporting period compared to the previous two reporting periods.

<sup>\*\*</sup> 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.

<sup>\*\*\*</sup> Number of blocks achieving the 3.5% / total number of blocks harvested

## 1.1.A.a.vi | 2.1.A.a.v 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	<u>Target</u> : > 75%
Trench and Wet Mountain of the young patch size distribution class 101-1000ha	Variance: -5%

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.

The table below shows the updated current status of Wet Trench and Wet Mountain young patch size distribution in the as of March 31, 2005

Natural Disturbance Unit	TARGET	Patch Size Range (ha)			Future Patch Size Trending
(NDU)	TAROLI	101-500	501-1000	Total	ruture rater size frending
Wet Mountain					Trend towards smaller patch sizes and
PG (ha)		9,739	3,364	13,103	away from larger patch sizes.
PG (%)	<u>&gt;</u> 75%	74.3%			
Wet Trench Mountain					Trend towards smaller patch sizes and
PG (ha)		3,305	2,893	6,197	away from larger patch sizes.
PG (%)	<u>&gt;</u> 75%	53.3%			
Wet Trench Valley					Trend towards larger patch sizes and
PG (ha)		17,889	11,036	28,925	away from smaller patch sizes.
PG (%)	<u>&gt;</u> 75%	61.8%			

**Indicator Discussion:** The LOWG which has representation for Ministry of Agriculture and Lands, 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. The next reporting date is scheduled for the spring of 2010.

Licensees will continue to share block data and work towards having  $\geq$  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.

#### 1.1.A.a.vii Coarse Woody Debris

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

Coarse woody debris (CWD) is defined as material being a 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 (F.P.P.R. Sec. 68. 2005). CWD is a vital component of a healthy functioning forest ecosystem in that it provides habitat for plants, animals and insects. It is also 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, 2006 to March 31, 2007 (Table 6). Licensees and BCTS will continue to implement pre-work checklists, interim inspections, and final reviews to ensure targets continue to be met.

Table 6: Cut Blocks Consistent with Course Woody Debris Requirements

Licensee	Total Number of Blocks Harvested with CWD Strategies*	Number of Blocks Harvested Consistent with CWD Strategies	Overall %**
Canfor	96	96	100.0%
Winton Global	25	25	100.0%
Lakeland Mills	24	24	100.0%
BCTS	28	28	100.0%
BCTS (FLA70174)	13	13	100.0%
Carrier	7	7	100.0%
TOTAL	193	193	100.0%

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

## 1.2.A.a.i | 2.2.A.a.i | Species Diversity and Ecosystem Productivity

Indicator Statement	Target and Variance
The percentage of forest operations consistent with approved provincial Car	ribou <u>Target</u> : 100%
Ungulate Winter Range, Mule deer UWR, Species at risk Notice /Orders and	d <u>Variance</u> : 0%
Riparian reserve requirements as identified in operational plans	

#### Caribou UWR

Mountain caribou populations are highly sensitive to disturbance and predatory pressures within their habitat. Caribou numbers are in decline due to a variety of causes. The B.C. conservation data center has placed mountain caribou on the provincial red list. 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 7: Forest Operations Consistent with Caribou Ungulate Winter Range Requirements

Licensee				perations with ge (UWR) Requ	Forest Operations Consistent with UWR	% in DFA**	
	Roads	Har	vesting	Silviculture*	Total	Requirements	
Canfor	0		0	0	0	0	
Winton Global	0		0	0	0	0	
Lakeland Mills	0		0	0	0	0	
BCTS	0		0	0	0	0	
BCTS (FLA70174)	0		0	0	0	0	
Carrier	0		0	0	0	0	
TOTAL	0		0	0	0	0	100%

<sup>\*</sup>Silviculture refers to Mechanical Site Preparation only

#### **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.

Areas harvested within mule deer UWR within the DFA during this reporting period are found in Table 8.

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

Table 8: Forest Operations consistent with Mule Deer Ungulate Winter Range Requirements

Licensee			erations with M ge (UWR) Requ	Forest Operations Consistent with UWR	% in DFA*	
	Roads	Harvesting	Silviculture	Total	Requirements	
Canfor	0	4	0	4	4	
Winton Global	0	0	0	0	0	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
BCTS (FLA70174)	0	0	0	0	0	
Carrier	0	0	0	0	0	
TOTAL	0	4	0	4	4	100%

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

Canfor had four harvesting operations within the Mule Deer UWR, all of which were deemed as being consistent with the UWR requirements.

#### 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, 2006 to March 31, 2007.

Table 9: Forest Operations consistent with Species at Risk Notice/ Orders Requirements

Licensee			erations with S (SAR) Require	Forest Operations Consistent with SAR	% in DFA*	
	Roads	Harvesting	Silviculture	Total	Requirements	
Canfor	0	0	0	0	0	
Winton Global	0	0	0	0	0	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
BCTS (FLA70174)	0	0	0	0	0	
Carrier	0	0	0	0	0	
TOTAL	0	0	0	0	0	100%

<sup>\* % = (</sup>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). Further refinement of this data will be conducted over the next year.

#### **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.

Forest operations conducted between April 1, 2006 and March 31, 2007 within the DFA is shown in Table 10.

**Table 10: Forest Operations Consistent with Riparian Reserve Requirements** 

Licensee	Total Numb	er of Forest Op Reserve Requ	Number of Forest Operations Completed	% in DFA**	
	Harvesting	Silviculture	Total Operations**		
Canfor	34	13	47	47	
Winton Global	24	20	44	44	
Lakeland Mills	16	11	43	43	
BCTS	9	0	9	9	
BCTS (FLA70174)	6	0	9	9	
Carrier	10	0	10		
TOTAL	99	44	162	162	100.0%

<sup>\*</sup> Measured by block

Overall, the licensees forest operations are 100% consistent with approved provincial Caribou Ungulate Winter Range, Mule deer UWR, Species at risk Notice /Orders and Riparian reserve requirements as identified in operational plans

## 1.2.A.a.ii Personnel Trained to Identify Species at Risk

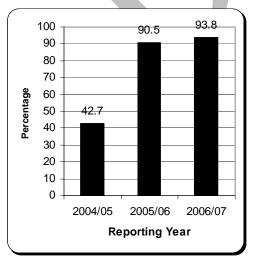
Indicator Statement	Target and Variance
Percent of appropriate personnel trained to identify Species at Risk	<u>Target</u> : 100%
	Variance: -10%

Identification of those species and plant communities that have been declared to be at risk is crucial if they are to be conserved. Appropriate personnel are key staff and consultants that are directly involved in operational forest management activities. By implementing training to identify Species at Risk the potential for disturbing these species and their habitat decreases. Maintaining all populations of native flora and fauna in the DFA is vital for sustainable forest management, as all organisms are components of the larger forest ecosystem.

Table 11: Appropriate Personnel Trained to Identify Species at Risk

Licensee	Total Number of Key Staff	Key Staff Trained to Identify Species at Risk	%in DFA*
Canfor	54	54	
Winton Global	6	6	
Lakeland Mills	3	3	
BCTS	60	52	
Carrier	7	7	
TOTAL	130	122	93.8%

<sup>\* % = (</sup>Personnel trained to identify SAR / number of personnel directly involved in operational forest management activities) X 100



Licensees all have a species at risk training program in place and have been steadily increasing the percentage of key staff trained for identifying species at risk (see figure).

In addition, BCTS is developing an online species at risk training module in 2007 to provide opportunities to train new staff throughout the year, which should increase their % of key staff trained nearer to the target of 100%.

<sup>\*\* % = (</sup>Operations completed in accordance with identified requirements / operations with riparian reserve requirements) X 100

## 1.2.A.a.iii Species at Risk & Management Strategies

Indicator Statement	Target and Variance
Percent of Species at Risk that have management strategies developed by April,	<u>Target</u> : 100%
2006	Variance: 0%

Some Species at Risk in British Columbia are found in areas of forestry development. Sustainable forest management must consider their needs when preparing and implementing operational plans. Appropriate management of these species and their habitat is crucial to ensuring populations of flora and fauna is sustained within the DFA. Specific management strategies are required to ensure that Species at Risk are maintained within the DFA. This indicator will ensure that appropriate management strategies are developed to conserve and manage Species at Risk and maintain flora and fauna native to the DFA.

Development and implementation of management strategies for Species at Risk requires knowledge of how many forest-dependant species inhabit a managed area. A review of Species at Risk flora and fauna in relation to the Prince George DFA should ideally consider all forest dependent species. For this indicator, the review of fauna will generally focus on vertebrates such as fish, mammals, birds, amphibians and reptiles currently identified as provincial red and blue listed species. Provincially Identified Wildlife, red and blue listed Plant communities, and Red listed plants will also be reviewed for the DFA based on a summary listing from the BC Conservation Data Center.

**Indicator Discussion:** The licensees have developed company management strategies for all 55 Species at Risk (28 animals and 27 plant species) which represents 100% of the Species at Risk within the DFA. Licensees will monitor and update the list annually.

## 1.2.A.a.iv Forest Operations & Species at Risk Management

Indicator Statement	Target and Variance
Percentage of forest operations consistent with Species at	Target: 100% commencing after April 2006
Risk Management strategies as identified in operational plans	Variance: -5%

This indicator evaluates the success of implementing specific management strategies for Species at Risk as prescribed in operational plans. As discussed in the previous indicator, various species at risk exist in the Prince George DFA and the Licensees/ BCTS have set a target date of April 2006 to develop management strategies for these species. All Licensees and BCTS currently have systems in place to evaluate the consistency of forest operations with operational plans

Licensees have developed management strategies for the Species at Risk within the DFA. As shown in the following table, 100% of the forest operations were consistent with these strategies during the 2006/07 reporting period.

Table 12: Forest Operations Consistent with Species at Risk Management Strategies

Licensee		Number of Forest Operations with Species at Risk Management Strategies		Forest Operations Consistent with	% in DFA*	
	Roads	Harvesting	Silviculture	Total	Identified Strategies	
Canfor	0	0	0	0	0	
Winton Global	0	1	0	1	1	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
BCTS (FLA70174)	0	1	0	1	1	
Carrier	0	4	0	4	4	
TOTAL	0	6	0	6	6	100%

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

## 1.2.A.a.v Site Plan Review for Species at Risk

Indicator Statement	Target and Variance
Percent of Site Plans reviewed by a person trained in Species at Risk	Target: 100%
	Variance: 0%

Site plans are the principle operational plans that direct forestry activities at the cutblock level. They are developed prior to harvesting and contain management strategies for the area to be harvested. By having site plans reviewed by personnel trained in Species at Risk management, an assessment of the prescribed management activities can be made. Tracking the percentage of site plans that are reviewed will allow licensees to evaluate how well Species at Risk management concerns are addressed during site plan development. Registered Professional Foresters (RPF) prepare or oversee the preparation of site plans. Currently, all site plans are reviewed or prepared by a RPF, but only areas with Species at Risk concerns receive specific attention from persons with Species at Risk management training.

The following table covers site plans harvested between April 1, 2006 and March 31, 2007 within the DFA.

Table 13: Site Plans Reviewed by Personnel Trained in Species at Risk

Licensee	Total Number of Site Plans	Site Plans Reviewed by Trained Staff**	% in DFA*
Canfor	96	96	100.0%
Winton Global	25	25	100.0%
Lakeland Mills	24	24	100.0%
BCTS	63	55	87.3%
BCTS (FLA70174)	13	13	100.0%
Carrier	7	7	100.0%
TOTAL	228	220	96.5%

<sup>\* % = (</sup>Number of site plans reviewed by a person trained in Species at Risk / total number of site plans reviewed) X 100

**Indicator Discussion**: As shown in the table above, BCTS had 8 site plans that have not been reviewed by persons trained on Species at Risk. All of these site plans were completed and reviewed prior to the SFMP requirement associated with this indicator. Moving forward, most timber sales associated with the 2007 sales schedule have been reviewed by persons trained in Species at Risk. Moving forward, if there are any blocks that are older and were not previously reviewed, they will be reviewed by a person trained in SAR prior to selling the sale.

## 1.2.A.a.vi Site Plans with Identified Species at Risk

Indicator Statement	Target and Variance
Percent of Site Plans with identified Species at Risk that have appropriate	Target: 100%
management activities	Variance: 0%

If there are Species at Risk identified in, or in proximity to areas to be harvested it will be the site plans that will describe the appropriate activities that must be performed to manage for those species. By tracking the number of Site Plans that have prescribed appropriate management activities Licensees and BCTS will be able to evaluate the success of those activities over time. They will also be able to evaluate the consistency of their procedures, and compare them to guidelines and other Licensee approaches to managing Species at Risk.

Table 14: Site Plans with Appropriate Management Strategies for Identified Species at Risk

Licensee	Number of Site Plans with Identified Species at Risk (SAR)	Number of Site Plans containing SAR Management Strategies	% Total*
Canfor	0	0	100%
Winton Global	1	1	100%
Lakeland Mills	0	0	100%
BCTS	0	0	100%
BCTS (FLA70174)	1	1	100%
Carrier	4	4	100%
TOTAL	6	6	100%

<sup>\* % = (</sup>Number of site plans with appropriate SAR Management strategies/ total number of site plans with identified SAR) X 100

<sup>\*\*</sup>Site plans reviewed by a person trained to identify Species at Risk

**Indicator Discussion:** During this reporting period, the Licensees identified six site plans requiring Species at Risk management strategies. All six site plans incorporated management strategies for Species at Risk.

#### 1.3.A.b.ii 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%

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 shows the area planted with seedlings and seeds 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	9,906.0	9,906.0	100.0%
Winton Global	1,472.4	1,472.4	100.0%
Lakeland Mills	501.0	501.0	100.0%
BCTS	3,686.0	3,618.9	98.2%
BCTS (FLA70174)	768.0	768.0	100.0%
Carrier	582.0	582.0	100.0%
TOTAL	16,915.4	16,848.3	99.6%

<sup>\*</sup> 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 Discussion**: BCTS is currently evaluating why they did not meet the target. It may be a potential issue related to mapping and on ground management may be fine.

## 1.4.A.a.i Sites of Biological Significance Training

Indicator Statement	Target and Variance
Percent of appropriate personnel trained to identify sites of biological significance	Target: 100%
	Variance: -10%

Sites of biological significance are sites that support red and blue listed plant communities and rare ecosystems. Sites of biological significance also include protected areas, national, provincial parks, multiple use management areas, wildlife reserves and such features as raptor nests or mineral licks. The government identifies Species at Risk habitats and Sites of Biological Significance. Appropriately trained personnel include key Licensee/ BCTS staff and consultants that are directly involved in operational forest management activities. Training to identify Sites of Biological Significance commenced in June of 2005 and continued in 2006 (in conjunction with Species at Risk training) for key personnel. Biannual refresher training is planned once initial training is complete. Newly hired staff will have their training needs evaluated and receive training if required. Training records will be reviewed annually to identify training needs and to ensure appropriate personnel are trained.

Table 16: Appropriate Personnel Trained to Identify Sites of Biological Significance

Licensee	Key Staff** Involved in Management Activities	Key Staff trained to Identify Sites of Biological Significance	% in DFA*
Canfor	54	54	
Winton Global	6	6	
Lakeland Mills	3	3	
BCTS	60	52	
Carrier	7	7	
TOTAL	130	122	93.8%

<sup>\* % = (</sup>Biological significance sites trained personnel / number of personnel directly involved in I forest activities) X 100

<sup>\*\*</sup> Key Staff includes consultants directly involved in operational forest management activities

**Indicator Discussion**: Licensees all have a site of biological significance training program (which is often combined with Species at Risk training) in place and have been steadily increasing the percentage of key staff trained for identifying species at risk. In addition, BCTS is developing online site of biological significance / Species at Risk training module in 2007 to provide opportunity to train new staff throughout year, which should increase their % of key staff trained nearer to the target of 100%.

## 1.4.A.a.ii Sites of Biological Significance Management Strategies

Indicator Statement	Target and Variance
Percent of sites of biological significance that have management strategies	<u>Target</u> : 100%
developed by April, 2006	Variance: 0%

Many types of sites of biological significance are sufficiently known to allow for the development of special management areas, or prescribed activities that will appropriately manage these areas. This indicator will ensure that specific management strategies are developed to conserve and manage sites of biological significance. Training on Sites of Biological Significance is provided in conjunction with the Species at Risk training. An individual trained in SAR will review site plans prepared prior to the development of Management Strategies. Once strategies are developed in 2006, staff must ensure strategies for sites of biological significance are met in the site plan.

**Indicator Discussion**: The licensees have developed company management strategies for all 80 Sites of Biological Significance (71 plant communities at risk and 9 special habitat features) which represents 100% of the sites of biological significance within the DFA. Licensees will monitor and update list annually.

## 1.4.A.a.iii Sites of Biological Significance Management Strategies Implementation

Indicator Statement	Target and Variance
Percent of forest operations consistent with sites of biological	Target: 100% annually
significance management strategies as identified in operational plans	commencing after April 2006
	Variance: -5%

This indicator evaluates the success of implementing specific management strategies for sites of biological significance as prescribed in operational plans. Once harvesting and other forest operations are complete, an evaluation is needed to determine how well these strategies were implemented. Tracking this consistency will ensure problems in implementation are identified and corrected in a timely manner.

**Indicator Discussion**: Licensees have developed management strategies for site of biological significance within the DFA. As shown in the following table, 100% of the forest operations were consistent with these strategies during the 2006/07 reporting period.

Table 17: Percentage of forest operations consistent with management strategies for Sites of Biological Significance.

Licensee	Total Number of Forest Operations with Management Strategies for Sites of Biological Significance	Number of Forest Operations Completed in Accordance with Identified Strategies	% Total*
Canfor	15	15	100%
Winton Global	1	1	100%
Lakeland Mills	0	0	100%
BCTS	0	0	100%
BCTS (FLA70174)	1	1	100%
Carrier	2	2	100%
TOTAL	19	19	100%

 $<sup>^*</sup>$  % = (Number of site plans with appropriate SAR Management strategies/ total number of site plans with identified SAR) X 100

## 1.4.B.a.i Unauthorized Harvesting within Landscape Level Reserves

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

Landscape level biodiversity reserves/ Protected Areas are areas protected by legislation, regulation, or landuse 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 there are improvements needed in the planning and implementation of forestry activities.

Table 18 shows the amount of unauthorized forestry operations within landscape level biodiversity reserves between April 1, 2006 and March 31, 2007 within the DFA.

Table 18: 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
Winton Global	0	0	0	0
Lakeland Mills	0	0	0	0
BCTS	0	0	0	0
BCTS (FLA70174)	0	0	0	0
Carrier	0	0	0	0
TOTAL	0	0	0	0

<sup>\*</sup>As per internal tracking systems

## 2.1.A.a.iv Areas Planted Consistent with Operational Plans

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

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 the following table, 99.3% of the areas planted between April 1, 2006 and March 31, 2007 within the DFA were consistent with operational plans.

**Table 19: Areas Planted Consistent with Operational Plans** 

Licensee	Total Area Planted (ha)	Area Planted in accordance with	% in DFA**
		Operational Plans (ha)*	
Canfor	9882.2	9882.2	
Winton Global	1472.4	1472.4	
Lakeland Mills	500.3	500.3	
BCTS	3686.0	3562.6	
BCTS (FLA70174)	768.0	768.0	
Carrier	582.0	582.0	
TOTAL	16890.9	16767.5	99.3%

<sup>\*</sup> Licensees may address what they consider significant factors (density, species, spacing etc.)

<sup>\*\* % = (</sup>Area planted in accordance with operational plans / total area planted) X 100

## 3.1.A.a.i Soil Conservation Standards

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

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, 2006 and March 31, 2007 within the DFA are consistent with soil conservation standards as identified in the operational plans.

**Table 20: Forest Operations Consistent with Soil Conservation Standards** 

Licensee	Total Numb	per of Forest Operations		Forest Operations	% in DFA*
	Harvesting	Silviculture**	Total	Consistent with Soil	
	and Roads			Conservation Standards	
Canfor	96	4	100	100	
Winton Global	59	26	85	85	
Lakeland Mills	24	12	36	36	
BCTS	28	0	28	28	
BCTS (FLA70174)	13	4	17	17	
Carrier	7	2	9	9	
TOTAL	227	48	275	275	100.0%

<sup>\* % = (</sup>Operations completed in accordance with soil conservation standards / total operations completed) X 100

## 3.1.A.a.ii | 4.2.A.a.i Cutblock Area Occupied by Permanent Access Structures

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

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 21.

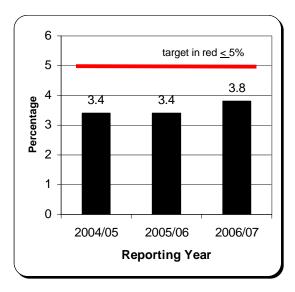
Table 21: Cut Block Area Occupied by Total Permanent Access Structures

Licensee	Total Cutblock Area	Total cutblock Area in	% of Cutblock Area**
	Harvested (ha) *	Permanent Access Structures	
Canfor	7,833.3	295.6	3.8%
Winton Global	1,971.3	68.9	3.5%
Lakeland Mills	1,305.6	45.9	3.5%
BCTS	1,564.7	63.8	4.1%
BCTS (FLA70174)	1,241.8	52.4	4.2%
Carrier	1,421.7	51.8	3.6%
TOTAL	15,338.4	578.4	3.8%

<sup>\*</sup> Total cutblock area = gross area less natural NP.

<sup>\*\*</sup> Refers to maximum levels addresses mechanically site prepared blocks only

<sup>\*\* % = (</sup>Area of permanent access structures/ total cutblock area) X 100



During this reporting period, the average cutblock area occupied by total permanent access structures ranged by licensees from 3.5% to 4.2%.

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

## 3.1.A.a.iii Terrain Management

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

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

Table 30 indicates forest operations with terrain management requirements on blocks harvested between April 1, 2006 and March 31, 2007 within the DFA.

Table 22: Forest Operations consistent with Terrain Management Requirements

Licensee	Number of Forest Operations with Terrain Management Requirements (TMR)			Forest Operations in Compliance with	% in DFA*	
	Roads	Harvesting	Silviculture	Total	TMR	
Canfor	0	5	5	10	10	
Winton Global	1	4	0	5	5	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
BCTS (FLA70174)	3	0	0	3	3	
Carrier	0	2	0	2	2	
TOTAL	4	11	5	20	20	100.0%

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

## 3.1.A.a.iv Reportable Spills

Indicator Statement	Target and Variance	
The number of legally reportable spills	Target: 0 (annually)	
	Variance: < 5 (annually)	

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.

Table 23: The Number of "Legally" Reportable Spills

Licensee	Number of Legally Reportable Spills
Canfor	0
Winton Global	0
Lakeland Mills	0
BCTS	0
Carrier	0
TOTAL for DFA	0

## 3.2.A.a.i Riparian Area Management

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

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 24: Forest Operations Consistent with Riparian Management** 

Licensee	Total Number of Forest Operations with Riparian Management Requirements			Number of Forest Operations with	% in DFA*
	Harvesting/Roads	Silviculture	Total	Requirements Met	
Canfor	94	13	107	103	
Winton Global	24	24	48	47	
Lakeland Mills	19	11	30	30	
BCTS	15	0	15	15	
BCTS (FLA70174)	15	0	15	14	
Carrier	7	0	7	7	
TOTAL	174	48	222	216	97.3%

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

**Indicator Discussion**: Canfor had four incidents of machines entering into machine free zones next to streams and lakes that are documented in the FMS Incident Tracking System. Canfor will be reviewing procedures to identify preventative actions. Winton Global had one incident were there was a road in a re-classified RMA and they plan to review their classification procedures. Carrier Lumber Ltd. had one incident related to stream side retention along an S4 stream on FL A70174. Contractor did not leave the required 10 stems per 100m stream length as required in the SP. Carrier is reviewing internal procedures to identify corrective and preventative action.

## 3.2.A.a.ii Stream Crossing Erosion Control Plans

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

Forestry roads can have a large impact on water quality and quantity when they intersect with streams, particularly by increasing sedimentation into water channels. 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 25 illustrates the number of stream crossings installed or removed between April 1, 2006 and March 31, 2007.

Table 25: 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	28	28	
Winton Global	5	5	
Lakeland Mills	2	2	
BCTS	9	9	
BCTS (FLA70174)	4	4	
Carrier	1	1	
TOTAL	49	49	100.0%

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

## 3.2.A.a.iii Unnatural Known Sedimentation

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

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 26.

Table 26: 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	
Winton Global	0	0	0	
Lakeland Mills	2	2	2	
BCTS	1	1	1	
BCTS (FLA70174)	2	2	2	
Carrier	1	1	1	
TOTAL	7	7	7	100.0%

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

#### 3.2.A.a.iv Maintenance of Natural Stream Flow

Indicator Statement	Target and Variance
The percentage of new stream crossings that maintain natural stream flow	<u>Target</u> : 100%
	Variance: 0%

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 27, 100% of all new stream crossings were installed to maintain natural stream flow.

Table 27: New Stream Crossings that Maintain Natural Stream Flow

Licensee	Total Number of New Stea Crossings Installed	Maintaining Natural Stream Flow*	% in DFA**
Canfor	28	28	
Winton Global	4	4	
Lakeland Mills	2	2	
BCTS	3	3	
BCTS (FLA70174)	4	4	
Carrier	0	0	
TOTAL	41	41	100.0%

<sup>\*</sup> Unrestricted stream flow which accommodates fish passage

## 3.2.A.a.v | 4.1.A.a.i | 5.1.A.a.ii Area Harvested vs. Area Regenerated

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

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 to Grow 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 which provides a different perspective than traditional reforestation goals set at the individual cutblock level.

Almost 99% of the net area was regenerated within 3 years of the starting of harvesting.

<sup>\*\* % = (</sup>Stream crossings that maintain natural flow / total number of stream crossings) X 100

Table 28: Net Area Regenerated vs. Net Area Harvested

Licensee	Net Area Harvested (ha)	Net Area Regenerated of those Harvested*	% in DFA**
Canfor	18,848.5	18,848.5	
Winton Global	1,007.7	992.0	
Lakeland Mills	527.9	527.9	
BCTS	1,350.6	1,098.9	
BCTS (FLA70174)	749.3	749.3	
Carrier	793.1	793.1	
TOTAL	23,277.1	23,009.7	98.9%

<sup>\*</sup> Area qualified as regenerated as soon as planting takes place

**Indicator Discussion**: Of the BCTS areas harvested but currently not regenerated within three years of logging started, the majority (202 ha) have been scheduled for planting during the 2007 planting season. The remainder (49 ha) are to be scheduled in 2007/ 2008. Winton Global identified that 15.7ha has a natural regeneration delay of 7 years

#### 3.2.A.a.vi Peak Flow Index Calculations

Indicator Statement	Target and Variance
Percent of watersheds with Peak Flow Index calculations calculated	Target: 100% by June, 2006
	Variance: +7 months

Peak flow is the maximum flow rate that occurs within a specified period of time, usually on an annual or event basis. The peak flow index (PFI) is a measure of the potential effect forest harvesting has on water flow within a particular watershed.

The Licensees and BCTS committed to have 100% of PFI calculations complete by June 2006. Once the PFI calculations are complete, the results will be reported back to the PAG.

**Indicator Discussion**: At the time of this report Licensees and BCTS have completed 100% of the PFI calculations for watersheds in the DFA. Completion dates are outlined below and were not complete in the established timeframe. The completion date was not achieved due to the magnitude of the project and difficulties encountered with coordinating this project in conjunction with the other commitments within the PG SFMP. The licensees and BCTS have developed a system for annually prioritizing projects. This prioritization includes a review of the time and resources required to complete projects to ensure targets and timelines are realistic.

Table 29: Percent of watersheds with peak Flow index calculations completed

Licensee	Total number of watersheds in the DFA*	Total number of watershed with peak flow PFI calculations	% of watersheds with peak flow calculations	Target date	Completion date
Canfor	110	110	100.0%	31-Dec-06	15-May-07
Winton Global	19	19	100.0%	31-Dec-06	10-May-07
Lakeland Mills	10	10	100.0%	31-Dec-06	10-May-07
BCTS	43	43	100.0%	31-Dec-06	10-May-07
Carrier	26	26	100.0%	31-Dec-06	10-May-07
TOTAL	208	208	100.0%	31-Dec-06	10-May-07

<sup>\*\* % = (</sup>Total area regenerated/ total area harvested) X 100

## 4.1.A.a.ii Free Growing Requirements

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

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, 2006 to March 31, 2006 the target for this measure was met as demonstrated in Table 30.

Table 30: Cut Block Area that Meets Free Growing Requirements as Identified in Site Plans

Licensee	Cut Block Area Required to Meet	Cut Block Area Meeting Free	% in DFA*
	Late Free Growing Status (ha)	Growing Status (ha)	
Canfor	8771.1	8,771,1	100.0%
Winton Global	5,157.0	5,157.0	100.0%
Lakeland Mills	793.3	793.3	100.0%
BCTS	2,539.0	2,382.9	93.9%
Carrier	821.4	821.4	100.0%
TOTAL	17,973.9	17,925.7	99.7%

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

**Indicator Discussion**: Of the BCTS areas not yet declared Free Growing, brushing has been scheduled and follow up free growing surveys for 78.6 ha's. Free growing surveys has been scheduled for 60 ha's and further investigation scheduled during 2007 field season to determine proper course of action on the remaining 17.1 ha's.

#### 4.1.A.a.iii Stand Damaging Agents

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

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 31 shows the areas with stand damaging agents that were prioritized for treatment between April 1, 2006 and March 31, 2007 within the DFA.

Table 31: 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	1,268,696	1,268,696	100.0%
Winton Global	264,602	264,602	100.0%
Lakeland Mills	85,277	85,277	100.0%
BCTS	555,699	555,699	100.0%
Carrier	189,109	189,109	100.0%
TOTAL	2,363,383	2,363,383	100.0%

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

#### 4.2.A.a.ii Forest Land Conversion

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

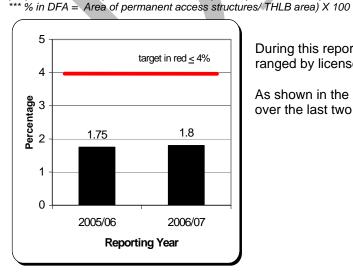
Forested land is converted to non-forested land as a result of forest operations through the development of permanent roads, bridges, landings, gravel pits and other similar structures in order to provide timber harvesting access. These structures remain in place after forest operations are complete. 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 MoFR, Timber Supply Review standard of 5% THLB conversion to permanent access structures. The indicator was developed on the recommendation of the PAG during this reporting period and is reported out below.

Table 32: 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	807,307	11,592	1.4%	295
Winton Global	168,661	4,118	2.4%	66
Lakeland Mills	64,683	1,967	3.0%	25
BCTS	301,578	5,112	1.7%	194
Carrier	101,014	3,235	3.2%	131
TOTAL	1,443,243	26,024	1.8%	711

<sup>\*</sup> 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)).



During this reporting period, the average forest land conversion ranged by licensees from 1.4% to 3.2%.

As shown in the adjacent figure, the amount of forest land conversion over the last two years is below the target of  $\leq 4\%$ .

#### 5.1.A.a.i Cut Level Volumes

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

To be considered sustainable, harvesting a renewable resource such as timber can not 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 94.7% of the apportioned amount.

Table 33: 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	12,693,718	13,014,164	5	102.5%
Winton Global	2,694,835	2,243,910	5	83.3%
Lakeland Mills	1,343,878	1,333,162	5	99.2%
BCTS	5,055,327	5,086,349	5	100.6%
FLA70174	1,500,000	646,459	4	43.1%
Carrier	1,332,671	992,631	5	74.5%
TOTAL	24,620,429	23,316,675	•	94.7%

<sup>\*</sup>Actual volume cut / 5 year volume apportioned

## 5.1.A.a.iv Forestry Related Industrial Fires

Indicator Statement	Target and Variance
Number of hectares (area) damaged by accidental forestry related industrial fires	Target: <100 ha annually
	Variance: 5.0 ha

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.

The following tables shows that a total of 49.8 ha of accidental forestry related industrial fires occurred during this reporting period.

<sup>\*\*% = (</sup>Actual cut level volume / AAC volume apportioned) X 100

<sup>\*\*\*</sup> The calculation for BCTS will be different

<sup>+</sup>BCTS data from cut control letters for forest licenses or best information available at the time

**Table 34: Accidental Forestry Related Industrial Fires** 

Licensee	Number of Accidental Forestry Related Industrial Fires	Total Area Damaged (ha)
Canfor	3	49.8
Winton Global	1	0
Lakeland Mills	0	0
BCTS	0	0
Carrier	0	0
TOTAL	4	49.8

**Indicator discussion**: Silviculture burning and harvest operations are the root cause of the industrial fires over the reporting year. The indicator is within the target variance. Canfor has taken steps to improve the 2007 emergency response and fire preparedness plans.

#### 5.1.A.b.i Non Timber Benefits

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

## **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 35 indicates 100% of forest operations on cut blocks with visual quality requirements were adhered to between April 1, 2006 to March 31, 2007 within the DFA.

**Table 35: Forest Operations Consistent with Visual Quality Requirements** 

Licensee	Number of	Forest Operati Requiremer	Forest Operations in Adhered to VQR	% for DFA *		
	Roads	Harvesting	Silviculture	Total		
Canfor	0	10	0	10	10	
Winton Global	0	0	1	1	1	
Lakeland Mills	0	0	0	0	0	
BCTS	0	2	0	2	2	
BCTS (FLA70174)	0	3	0	3	3	
Carrier	1	4	0	5	5	
TOTAL	1	19	1	21	21	100.0%

<sup>\* % = (</sup>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 36: Forest Operations Consistent with the Cultural Heritage Requirements

Licensee	Number	of Forest Oper Heritage Req	Total with Cultural Heritage	% for DFA *		
	Roads	Harvesting	Silviculture	Total	Requirements Met	
Canfor	0	48	0	48	48	
Winton Global	0	18	7	25	25	
Lakeland Mills	8	8	7	23	23	
BCTS	0	1	0	1	1	
BCTS (FLA70174)	0	12	0	12	12	
Carrier	1	3	0	4	4	
TOTAL	9	90	14	113	113	100.0%

<sup>\* % = (</sup>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 37 shows 100% of forest operations on blocks with range management requirements were adhered to during the reporting period within the DFA.

Table 37: Forest Operations Consistent with Range Requirements

Licensee	Total N	lumber of Fores Requi	Total Number with Range	% for DFA*		
	Roads	Harvesting	Silviculture	Total	Requirements Met	
Canfor	0	2	0	2	2	
Winton Global	0	0	0	0	0	
Lakeland Mills	0	0	0	0	0	
BCTS	0	9	0	9	9	
BCTS (FLA70174)	3	0	0	3	3	
Carrier	0	0	0	0	0	
TOTAL	3	11	0	14	14	100.0%

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

## Riparian Management (see 3.2.A.a.i)

#### 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 38 shows forest operations within areas with recreation management requirements between April 1 2006 and March 31, 2007 within the DFA.

**Table 38: Forest Operations Consistent with Recreation Requirements** 

Licensee	Total N		rest Operation Requirements	Number of Forest Operations Meeting	% in DFA*	
	Roads	Harvesting	Silviculture	Total	Recreation Requirements	
Canfor	0	0	0	0	0	
Winton Global	0	0	0	0	0	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
BCTS (FLA70174)	0	0	0	0	0	
Carrier	0	0	0	0	0	
TOTAL	0	0	0	0	0	100%

<sup>\* % = (</sup>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 39: Forest Operations Consistent with Lakeshore Requirements** 

Licensee	Nun		t Operations we equirements	Number with Requirements Met	% for DFA*	
	Roads	Harvesting	Silviculture	Total		
Canfor	0	23	0	23	23	
Winton Global	0	12	3	15	15	
Lakeland Mills	0	0	3	3	3	
BCTS	0	1	0	1	1	
BCTS (FLA70174)	0	0	0	0	0	
Carrier	0	0	0	0	0	
TOTAL	0	36	6	42	42	100.0%

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

#### 5.1.A.b.ii First Order Wood Products

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

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 40). 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.

From Table 40, there are 15 first order wood products produced from trees harvested from the DFA.

Table 40: First Order Wood Products Produced from Trees Harvested from the DFA

Licensee	Canfor	Winton Global	Lakeland Lumber	BCTS	Carrier	Total	Products Produced
Raw Logs	1	1	1	1	1	5	1
House Logs	1	1	0	0	1	3	1
Lumber	1	1	1	0	1	4	1
Custom Cut Lumber	1	1	0	0	0	2	1
Reman Lumber*	1	1	0	0	7	2	1
Pulp Chips	1	1	1	0	1	4	1
OSB Stands	0	0	0	0	0	0	0
Hog Fuel	1	1	1	0	1	4	1
Wood Shavings	1	1	1	0	1	4	1
Plywood	1	0	0	0	0	1	1
Veneer	1	0	0	0	0	1	1
Pole Logs	1	0	0	0	9	1	1
Railway Ties	1	0	0	0	0	1	1
Sawdust	0	1	0	0	1	2	1
Instruments	0	0	0	0	0	0	0
Finger Joint	1	0	0	0	0	1	1
Japanese Blinds	0	0	0	0	1	1	1
Total	13	9	5	1	9		15

<sup>\*</sup> Remanufactured lumber - trim blocks

## 5.1.A.b.iii 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%

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 41 reports on the percentage of volume advertised through an open competitive bid in the Prince George Forest District. Currently 18.3% of volume in the prince George Forest District is advertised through open competitive bid.

Table 41: 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	4,019,810	0	
Winton Global	505,541	0	
Lakeland Mills	266,407	0	
BCTS	1,270,203	1,222,819	
BCTS (FLA70174)	243,599	0	
Carrier	365,866	0	
Non-Signatory	0	0	
TOTAL	6,671,426	1,222,819	18.3%

<sup>\*</sup> 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

## 5.1.A.b.iv Public and Stakeholder Input

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

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 42 shows that a total of 47 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 42: Opportunities for Public and Stakeholders to be involved in Planning Processes

	Nur	Number of Opportunities for Public and Stakeholders Input					
Opportunity	Canfor	Winton Global	Lakeland Mills	встѕ	Carrier	Joint SFMP	TOTAL
FSP Original Ads	0	0	0	0	0	0	0
FSP Amendment Ads	1	0	0	0	0	0	1
FSP Stakeholder Letters	1	1	1	1	1	0	5
PMP Original Ads	1	0	1	1	1	0	4
PMP Stakeholder letters	1	0	1	1	1	0	4
PMP Signage	1	1	1	0	1	0	4
Field Tours	1	1	1	1	1	1	6
CNRC Meetings	0	0	0	0	0	0	0
Newsletters	0	0	0	0	0	0	0
Open Houses	1	1	0	1	0	1	4
PAG Meetings	1	1	0	1	0	1	4
LRMP Meetings	1	1	0	1	0	0	3
Documented Phone Calls	1	1	1	1	1	0	5
Documented Personal Meetings	1	1	0	1	1	0	4
Expression of interest letters	1	1	0	0	1	0	3
Total for DFA*	12	9	6	9	8	3	47

<sup>\*</sup> 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.

## 5.1.A.b.v Viewing of Access Plans

Indicator Statement	Target and Variance
Annually, provide a viewing of BCTS and Licensee current	Target: On or before October 1st of each year
access plans of the DFA	Variance: +1 month

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.

The Licensees and BCTS held an access viewing at Pine Center Mall, PG - October 20, 2006, jointly displaying their road access information, which meets the target, established for this measure. In addition, the licensees provided information on general sustainable forest management, the Prince George Public Advisory Group, the Prince George SFMP and the Prince George SFMP annual report.





Open House held at the Prince George Pine Centre Mall

#### 5.1.A.b.vi Responses to Written Public Inquiries

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

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.

The licensees are currently at a 95% rate regarding timely responses to written public inquiries.

Table 43: Timely Responses to Written Public Inquiries

Licensee	Total Number of Written Public Inquiries Made	Total Number of Responses Made within 30 days	% for DFA*
Canfor	32	32	
Winton Global	4	3	
Lakeland Mills	0	0	
BCTS			
Carrier	4	3	
TOTAL	40	38	95.0%

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

**Indicator Discussion:** Although some licensees reported that no written public inquires were made to licensees by the public, stakeholders and the public were communicated with a number of times.

## 5.1.A.b.vii Communication Strategies

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

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, 100% of stakeholder and public communication strategy requirements have been meet over the reporting period.

**Table 44: Communication Strategy Requirements Met** 

Licensee	Number of Communication Strategies Required	Number of Communication Strategies Completed	% for DFA*
Canfor	1239	1239	
Winton Global	26	26	
Lakeland Mills	66	66	
BCTS			
Carrier	63	63	
Joint	0	0	
TOTAL	1394	1394	100.0%

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

#### 5.2.A.a.i 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	<u>Target</u> : 75%
from North Central Interior Suppliers and Contractors	Variance: -5%

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

The North Central Interior is defined in this SFMP as the region that includes communities from 100 Mile House to McKenzie (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.

Over 92% of the money spent on forestry operations and management is provided to NCI suppliers/contractors.

Table 45: Forest Operations and Management Provided by NCI Suppliers/Contractors

Licensee	% Money Spent in NCI***	Volume Billed (sold BCTS)	Weighted Average Volume*	Weighted average
Canfor	99.0%	3,621,270.0	35,850.6	% in DFA**
Winton Global	94.6%	503,498.0	4,764.1	
Lakeland Mills	96.3%	316,157.0	3,044.6	
BCTS	70.1%	1,222,819.0	8,572.0	
Carrier	99.0%	416,228	4,120.7	
TOTAL		6,079,972	56,352	92.7

<sup>\*</sup> Weighted Average Volume = (individual cut volume X individual % money spent in NCI) / 100

## 5.3.A.a.i Payment of Taxes

Indicator Statement	Target and Variance
Percentage of taxes paid on time to the Government	<u>Target</u> : 100%
	Variance: 0%

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 were paid on time for the reporting period of April 1, 2006 to March 31, 2007. This includes GST, property tax and corporate taxes only and is based on a weighed average by AAC.

Table 46: Taxes and Stumpage Paid on Time to Governments

Licensee	% Taxes Paid on	% Stumpage Paid	AAC
	Time*	on Time**	
Canfor	100.0%	100.0%	3,621,270
Winton Global	100.0%	100.0%	503,498
Lakeland Mills	100.0%	100.0%	316,157
BCTS	n/a	n/a	n/a
Carrier	100.0%	100.0%	416,228
TOTAL			4,857,153

<sup>\*</sup> This includes GST, property tax and corporate tax only

Indicator Discussion: Government organizations such as BCTS, do not pay taxes to government.

## 5.3.A.a.ii Stumpage Paid to Government

Indicator Statement	Target and Variance
The percent of stumpage paid on time to Government	<u>Target</u> : 100%
	Variance: 0%

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, 2006 and March 31, 2007, 100% of stumpage fees were paid on time.

<sup>\*\*</sup> Weighted Average % = ( total weighted average volume / total cut volume) X 100

<sup>\*\*\* %</sup> Money spent in NCI does not include taxes

<sup>\*\* % = (</sup>Weighted by AAC)

#### 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

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 47 show the number of lost time accidents reported between April 1, 2006 and March 31, 2007 in the Woodland Operations of the signatory licensees.

Table 47: Number of Loss Time Accidents in Woodlands Operations

Licensee	Number of Loss Time Accidents
Canfor	1
Winton Global	0
Lakeland Mills	0
BCTS	0
Carrier	0
TOTAL	1

**Indicator discussion:** This loss time accident was attributed to an eye injury, from a Canfor employee while timber cruising. Canfor has added eye protection to the Personal Protective Equipment required by individuals working within the timber.

## 6.1.A.a.i Legally Recognized Treaty Areas

Indicator Statement	Target and Variance
No unauthorised forestry activities within legally recognized (Province and Fe	ederal) <u>Target</u> : 100%
treaty areas.	Variance: 0%

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 (Lheit-Lit'en) First Nation
- Lhoosk'uz Dene Nation (Kluskus First Nation)
- McLeod Lake Band
- Nak'azdli Band
- Nazko First Nation
- Simpow First Nation (North Thompson Indian Band)
- Red Bluff First Nation
- Saik'uz First Nation

Table 48 shows that no forest operations activities were done during this reporting period in treaty areas within the DFA..

Table 48: 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	0	0	0	
Winton Global	0	0	0	0	0	
Lakeland Mills	0	0	0	0	0	
BCTS	0	0	0	0	0	
Carrier	0	0	0	0	0	
TOTAL	0	0	0	0	0	100%

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

## 6.1.A.a.ii Forest Stewardship Plan Referral to First Nations

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

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. In order to maintain a high level of participation and response, Licensees/ BCTS have also engaged First Nation people within their communities as they have requested, in order 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 done.

Table 49: 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 / Carrier	1	1	
Sinclar**	0	0	
BCTS	0	0	
TOTAL	1	1	100.0%

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

#### 6.1.A.a.iii Pesticide Management Plan Referrals to First Nations

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

This indicator will measure the success of Licensees/ BCTS to have all Pesticide Management Plans and associated major amendments referred to affected Aboriginal bands. Licensees/ BCTS use a variety of pesticides during the forest management process. The primary objective has been to control competing vegetation on regenerating cutblocks. Industrial users of non-high risk class pesticides are required to prepare a

<sup>\*\*</sup>Sinclar includes Winton Global Lumber Ltd. and Lakeland Mills Ltd.

Pest Management Plan (PMP) which requires 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. As pesticides may have to be used within the DFA to meet certain forestry objectives, Pest Management Plans will be prepared to outline their use. This use may include areas of interest to various First Nation groups within the DFA and the plans need to be referred to them for input. The location and type of pesticide use may change as a result of their consultation.

Table 50 shows that 100% of the required Pesticide Management Plans and associated major amendments referrals to Aboriginal Bands were completed during this reporting period within the DFA.

Table 50: All PMP and Associated Major Amendments referred to Affected Aboriginal Bands

Licensee	PMP and Associated Major Amendments Completed	PMP and Amendments Referred to Affected Aboriginal Bands	% for DFA*
Canfor	1	1	
Winton Global	0	0	
Lakeland Mills	1	1	
BCTS	0	0	
Carrier	1	1	
TOTAL	3	3	100.0%

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

## 6.2.A.a.i Cultural Heritage Requirements

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

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. 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, 2006 and March 31, 2007 within the DFA are consistent with cultural heritage requirements..

Table 51: Forest Operations Consistent with the Cultural Heritage Requirements

Licensee	Number	of Forest Ope Heritage Re	erations with C	Total with Cultural Heritage	% for DFA *	
	Roads	Harvesting	Silviculture	Total	Requirements Met	
Canfor	0	8	0	8	8	
Winton Global	0	18	7	25	25	
Lakeland Mills	8	8	7	23	23	
BCTS	0	1	0	1	1	
BCTS (FLA70174)	0	12	0	12	12	
Carrier	1	3	0	4	4	
TOTAL	9	50	14	73	73	100.0%

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

## 6.2.A.a.ii Heritage Conservation Act

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

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, 2006 and March 31, 2007 within the DFA are consistent with Heritage Conservation Act.

Table 52: Forest Operations Consistent with the Heritage Conservation Act

Licensee	Number of Forest Operations within Sites Protected under the Heritage Conservation Act (pre1846)			Activities in Compliance with the Act	% for DFA *	
	Roads	Harvesting	Silviculture	Total		
Canfor	0	8	0	8	8	
Winton Global	0	2	2	4	4	
Lakeland Mills	1	1	1	3	3	
BCTS				0		
BCTS (FLA70174)	0	0	0	0	0	
Carrier	0	1	0	1	1	
TOTAL	1	12	3	16	16	100.0%

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

## 6.3.A.a.i PAG Satisfaction with Public Participation

Indicator Statement	Target and Variance
Percentage of PAG (Public Advisory Group)	Target: 100%-a rank of 5 (very good) for all meetings
satisfaction with public participation process	Variance: -20% (a rank of 3.6)

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.

During the 9 PAG meetings, 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?" The answers to the question showed a general improving trend. The overall average was 4.4 (88%). This translates as a "good" ranking, with 5 being very good, the highest possible rating.

#### Table 53: 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?	4.4	88%

#### 6.3.A.a.ii PAG Terms of Reference

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

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 maintains the Terms of Reference document so that any revisions resulting from an annual review will be made and the new document will be distributed to PAG members.

The Public Advisory Group reviewed the terms of reference once during this reporting period November 2, 2006, which meets the established target for this indictor.

## 6.3.A.a.iii Number of PAG Meetings

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

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 54: Number of Public Advisory Group Meetings per Year

Meeting Dates	Total Number of
June 8, 2006, September 23, 2006, November 2, 2006, November 23, 2006	PAG Meetings
December 7, 2006, January 18, 2007, February 8, 2007, March 1, 2007	
March 29, 2007	9

## 6.3.A.a.iv 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	Target: 100% Annually
participate in the Public Advisory Group (PAG) process	Variance: 0%

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. The 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 is designed to monitor 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.

As of April 1, 2006, the PAG included at least one representative from 18 of the 19 Terms of Reference listed sectors. Some of the people attending the PAG meetings were affiliated with some of the six First Nation groups listed in the Terms of Reference, but they were not their official representatives.

Table 55: Public Sectors Invited to Participate in the PAG Process

Number of Sectors with a Representative Identified	18
Number of Sectors with No Representative, with invitations on file	1
Total number invited	19
Number of Public Sectors in Terms of Reference(ToR)	19
% of Public Sectors Invited*	100.0%

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

## 6.4.A.a.i PAG Satisfaction with Information Presented for Decision Making

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

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 were added to the PAG meeting evaluation forms to address this indicator: MQ12 - how timely was the information? and MQ13 how satisfied were you with the information? The feedback on these two questions were tracked at the PAG meetings during the reporting period. A score of 90% and 92% respectively for these questions is within the target set for this indicator.

Table 56: 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?	4.5	90.0%
Question MQ 13- How satisfied were you with the information?	4.6	92.0%

<sup>\* % =</sup> Score / # of meeting evaluations

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	А3	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



