

Prince George Sustainable Forest Management Plan 2015/16 Annual Report



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1.0 Introduction

This is the 2015/16 Annual Report for the Prince George Sustainable Forest Management Plan (SFMP), covering the reporting period of April 1st 2015 to March 31st 2016.

The SFMP currently represents Canadian Forest Products Ltd.'s (Canfor's) efforts to maintain Canadian Standards Association (CSA) certification to the CSA Z809-08 standard.

Between 2004 and 2006, major forest tenure holders ("licensees") operating in the Prince George Defined Forest Area (DFA) worked with a group of public and Aboriginal representatives (the SFM Public Advisory Group) to develop a Sustainable Forest Management Plan (SFMP). Earlier, in 2000, a similar Public Advisory Group worked with Canfor to develop a SFMP for Canfor's Tree Farm License 30 (TFL30). Members of the SFM Public Advisory Groups (PAG) for both the DFA and TFL30 represented a cross-section of local interests including recreation, tourism, ranching, forestry, conservation, water, community and Aboriginals.

In the fall of 2010, the licensees on the DFA and TFL30 agreed to merge the two SFM Plans into one document and one Defined Forest Area as part of the transition to the Canadian Standards Association (CSA) Sustainable Forest Management (CSA Z809-08) standard.

Over the years, many of the original signatories to the SFMP left the CSA SFM standard, with the most recent being BC Timber Sales-Prince George Business Area in the summer of 2012. This is the second annual report since the departure of BCTS-PG, with Canfor the sole signatory licensee.

The SFMP includes a set of values, objectives, indicators and targets that address environmental, economic and social aspects of forest management in the Prince George Defined Forest Area. An SFMP developed according to the CSA standard sets performance objectives and targets over a defined forest area (DFA) to reflect local and regional interests. Consistent with most certifications, and as a minimum starting point, the CSA standard requires compliance with existing forest policies, laws and regulations. Changes to this annual report reflect the 2008 (CSA Z809-08) standard requirements as embodied in the Prince George Defined Forest Area SFMP – August 2014.

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

This Annual Report measures Canfor'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 landbase within the Prince George Forest District and Canfor's operating areas, 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 (August 2014).

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.

BEC – Biogeoclimatic Ecosystem Classification

CSA – Canadian Standards Association

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

DFA – Defined Forest Area

FPPR – Forest Planning and Practices Regulation

LOWG – Landscape Objectives Working Group

MoFR – Ministry of Forest and Range

NDU – Natural Disturbance Unit

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 35 indicators listed below, 32 indicators were met within the prescribed variances, 0 are pending, and 3 indicators were not met within the prescribed variances. For each off-target indicator, a corrective and preventative action plan is included in the indicator discussion.

Summary of Indicator Status, April 1st 2015 to March 31st 2016

| Indicator Number | Indicator Statement | Target Met | Pending | Target Not Met |
|------------------|--|-------------------------------|---------|----------------|
| 1.1.1 | Total hectares logged in rare and uncommon ecosystems | X | | |
| 1.1.2 | Percent distribution of forest type (treed conifer, treed broadleaf, treed mixed) >20 years old across DFA | X | | |
| 1.1.3(a) | Percent late seral distribution by ecological unit across the DFA | | | X |
| 1.1.3(b) | Maintain a variety of young patch sizes in an attempt to approximate natural disturbance. | | | X |
| 1.1.4(a) | Percent of stand structure retained across the DFA in harvested areas | X | | |
| 1.1.4(c) | Number of non-conformances where forest operations are not consistent with riparian management requirement as identified in operational plans | | | X |
| 1.2.1 & 1.2.2 | Percent of forest management activities consistent with current Best Management Practices for Species of Management Concern | X | | |
| 1.2.3 & 1.3.1 | Artificial regeneration will be consistent with provincial regulations and standards for seed and vegetative material use | X | | |
| 1.3.1 | See 1.1.2, 1.1.3(a), 1.1.3(b), 1.2.1, 1.2.3, 1.4.1 | (refer to related indicators) | | |
| 1.4.1 | Percent of forest management activities consistent with management strategies for protected areas and sites of biological significance, as contained in operational plans. | X | | |
| 1.4.2 | % of identified Aboriginal forest values, knowledge and uses considered in forestry planning processes | X | | |
| 2.1.1(a) | The regeneration delay, by area, for stands established annually | X | | |
| 2.1.1(b) | The % of block area that meets free growing requirements as identified in site plans. | X | | |
| 2.2.1(a) | The % of gross land base in the DFA converted to non-forested land use through forest management activities. | X | | |
| 2.2.2 | Percent of volume harvested compared to allocated harvest level. | X | | |
| 3.1.1 | Percent of harvested blocks meeting soil disturbance objectives identified in plans. | X | | |
| 3.1.2 | % of cut blocks where post harvest CWD levels are within the targets contained in Plans. | X | | |
| 3.2.1(a) | The percentage of watersheds with active operations that have had a watershed assessment completed. | X | | |
| 3.2.1(b) | The percentage of active operations within high risk watersheds that implement the recommendations of a hydrologic assessment. | X | | |
| 3.2.1(c) | Percentage of high hazard drainage structures in watersheds with identified water quality concerns that have mitigation strategies implemented. | X | | |
| 4.1.1 (a) | Areas with stand damaging agents will be prioritized for treatment [see also 1.1.3(a), 1.1.3(b), 2.1.1(a), 2.1.1(b), 2.2.1(a)] | X | | |

| Indicator Number | Indicator Statement | Target Met | Pending | Target Not Met |
|------------------|--|-------------------------------|----------|----------------|
| 4.2.1 | See 2.2.1(a) | | | |
| 5.1.1(a) | See 2.2.2, 4.1.1(a) | (refer to related indicators) | | |
| 5.1.1(b) | Conformance with strategies for non-timber benefits identified in plans | X | | |
| 5.2.1(a) | Percent of money spent on forest operations and management in the DFA provided by North Central Interior suppliers and contractors | X | | |
| 5.2.1(b) | Number of donations to the local community | X | | |
| 5.2.2 | Training in environmental & safety procedures in compliance with company training plans | X | | |
| 5.2.3 | Level of direct & indirect employment | X | | |
| 5.2.4 | Number of opportunities for Aboriginals to participate in the forest economy | X | | |
| 6.1.1 | Employees will receive Aboriginal awareness training | X | | |
| 6.1.2 | Evidence of best efforts to share interests and plans with Aboriginal communities | X | | |
| 6.1.3 | Percent of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses, communicated through information-sharing and cultural heritage evaluations. | X | | |
| 6.2.1 | (see 1.4.2) | (refer to related indicators) | | |
| 6.3.1(a) | Primary and by-products that are bought, sold, or traded with other forest-dependent businesses in the local area | X | | |
| 6.3.2 & 6.3.3 | Implementation and maintenance of a certified safety program | X | | |
| 6.4.1 | PAG established and maintained, and satisfaction survey implemented according to the Terms of Reference | X | | |
| 6.4.2 | Number of educational opportunities for information/training that are delivered to the PAG | X | | |
| 6.4.3 | See 6.1.2 | (refer to related indicators) | | |
| 6.5.1 | The number of people who attend the educational opportunities provided | X | | |
| 6.5.2 | SFM monitoring report made available to the public | X | | |
| | Totals | 32 | 0 | 3 |

1.3 SFM Performance Reporting

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

2.0 SFM Indicators, Targets and Strategies

Indicator 1.1.1 Ecosystem area by type

| Indicator Statement | Target and Variance |
|---|---|
| Total hectares logged in rare and uncommon ecosystems | Target: 0 hectares Variance: Based on assessments completed by professionals, those ecosystems deemed poor representation of the rare ecosystem can be harvested |
| Was the Target Met? | |

Maintaining representation of a full range of ecosystem types is a widely accepted strategy to conserve biodiversity. Ecosystem conservation represents a coarse-filter approach to biodiversity conservation. It assumes that by maintaining the structure and diversity of ecosystems, the habitat needs of various species will be provided. For many species, if the habitat is suitable, populations will be maintained.

Rare ecosystems are frequently identified as focal points for conservation concern. Provincially, ecosystems are listed based largely on frequency of occurrence or rarity. There are at least three broad reasons for creating local lists, including:

- to help assess the status of an ecosystem throughout a planning area;
- to focus attention and tracking on ecosystems that merit conservation concern; and
- to help rank allocation of resources to conservation efforts, such as parks, Wildlife Habitat Areas, Old Growth Management Areas (OGMA's) or Wildlife Tree Patches (WTPs).

An analysis of ecosystem representation across all Canfor and BCTS operations in British Columbia was conducted in 2011. This analysis determined the abundance and representation of ecosystem groups within four distinct regions and 13 management units. The Prince George DFA is mostly within the North – East Mountains region and a portion of the West – Central region and comprises 23 unique forested ecosystem groups.

The target of 0 hectares of rare and uncommon ecosystems logged per reporting period was selected as a proactive measure to identify and conserve rare and uncommon ecological communities. Rare or uncommon ecosystem groups were identified by mapping at the BEC variant level or Predictive Ecosystem Mapping (PEM) site series level. If these site series are encountered during field layout, they are assessed and reserved from harvest either through exclusion from the harvest area or designation of reserves around the site.

As illustrated by the following tables, whereas PEM indicates the potential presence of rare sites within proposed harvest areas, ground confirmation is used to either place the confirmed rare sites within reserves, or confirms that the PEM data is not accurate and the sites are correctly typed as more common sites.

Trend: Rare ecosystems located within reserves as per Predictive Ecosystem Mapping (hectares)

| Reporting Period | PG DFA | TFL30 DFA | Total Predicted for Period: |
|------------------|--------|----------------------|-----------------------------|
| 2010/11 | 3.1 | (data not available) | 3.1 |
| 2011/12 | 2.8 | 11.5 | 14.3 |
| 2012/13 | 0.3 | 60.6 | 60.9 |
| 2013/14 | 3.7 | 15.3 | 19.0 |
| 2014/15 | 0 | 10.0 | 10.0 |
| 2015/16 | 12.3 | 18.7 | 31.0 |
| Predicted Total: | 22.2 | 116.1 | 138.3 |

Trend: Rare ecosystems harvested as per Predictive Ecosystem Mapping (hectares)

| Reporting Period | PG DFA | TFL30 DFA | Total for Period: |
|------------------|-------------|----------------------|-------------------|
| 2010/11 | 42.1 | (data not available) | 42.1 |
| 2011/12 | 16.3 | 7.2 | 23.5 |
| 2012/13 | 1.2 | 243.6 | 244.8 |
| 2013/14 | 0 | 91.6 | 91.6 |
| 2014/15 | 2.0 | 57.0 | 59.0 |
| 2015/16 | 1.9 | 72.4 | 135.9 |
| Total: | 63.5 | 471.8 | 535.3 |

Trend: Harvest of rare ecosystems, as per ground-based eco-typing (hectares)

| Reporting Period | PG DFA | | TFL30 DFA | |
|------------------|----------------|----------------------|----------------------|----------------------|
| | Area harvested | Rare sites harvested | Area harvested | Rare sites harvested |
| 2010/11 | 6484.7 | 0 | (data not available) | 0 |
| 2011/12 | 5909.1 | 0 | 1001.3 | 0 |

| | | | | |
|---------------|-----------------|----------|----------------|----------|
| 2012/13 | 6490.0 | 0 | 1475.9 | 0 |
| 2013/14 | 6437.0 | 0 | 1835.0 | 0 |
| 2014/15 | 6387.0 | 0 | 1693.0 | 0 |
| 2015/16 | 10,281.7 | 0 | 1737.7 | 0 |
| Total: | 41,989.5 | 0 | 7,742.9 | 0 |

Indicator 1.1.2 Forest area by type or species composition

| Indicator Statement | Target and Variance |
|--|---|
| Percent distribution of forest type (treed conifer, treed broadleaf, treed mixed) >20 years old across DFA | Target: Treed conifer: 73-93%; Treed Broadleaf: 1.5-6%; Treed Mixed: 5-15% Variance: None below proposed targets |
| Was the Target Met? Yes | |

Forest area by type is a refinement of the previous indicator – ecosystem area. Tree species composition, stand age, and stand structure are important variables that affect the biological diversity of a forest ecosystem - providing structure and habitat for other organisms. Ensuring a diversity of tree species within their natural range of variation improves ecosystem resilience and productivity and positively influences forest health. The diversity of plant species also directly correlates to genetic diversity within a plant community. Reporting on this indicator is intended to illustrate the distribution of three broad classes of forest types (aspatial) and provide high level overview information on area covered by broad forest type, forest succession and management practices that might alter species composition.

Although this indicator status is to be updated every five years or so, as the Timber Supply Review (TSR) is completed for the management unit, it was updated for the 2013/14 Annual Report in order to reflect the change in areas resulting from the departure of BCTS-PG from the SFM Plan. Furthermore, at its March 2014 meeting, the PAG consented to a slight change in the indicator target in order to reflect the composition of the Treed Conifer forest type in the updated DFA, from a range of 70-90% to a range of 73-93%.

Current State, as per Internal Analysis by Canfor (December 2013) – to be updated every five years or as triggered by a Timber Supply Review or other event

| Forest Type | Canfor's Operating Areas within the PG District (ha) | Canfor's TFL30 (ha) | Park Apportionment | Forest Area (ha) | Forest Area (%) |
|--------------|--|---------------------|--------------------|------------------|-----------------|
| Coniferous | 865,739 | 109,548 | 53,336 | 1,028,623 | 90.6 |
| Broadleaf | 16,550 | 1,908 | 567 | 19,025 | 1.7 |
| Mixed | 79,134 | 5,338 | 3,576 | 88,048 | 7.8 |
| Total | 961,423 | 116,794 | 57,479 | 1,135,696 | 100% |

Indicator 1.1.3(a) Forest area by seral stage or age class (late seral)

| Indicator Statement | Target and Variance |
|---|--|
| Percent late seral distribution by ecological unit across DFA | Target: As per the "Landscape Biodiversity Objectives for the PG TSA" (applicable to operating areas within the PG District); and as per the Provincial Non-Spatial Old Growth Objective (applicable to TFL30). The target is to manage to the science mean with a variance to the minimum of the legal objectives. Variance: As above. |
| Was the Target Met? No | |
| Action Plan: As identified in the late November 2011 Licensee Landscape Objective Working Group (LLOWG) analysis, | |

Merged BEC Units A4, A5, A15, A18, A24 and A25 were identified as having a deficit of Old Forest. Recruitment strategies were developed by the LLOWG, and approved by the relevant government agency in March 2012.

As of the 2012/13 LLOWG analysis, A25 aged out of a deficit position, but its old forest percentages are not far above the legal target. In late 2015, Canfor staff initiated the process of spatially locating Landscape Biodiversity Areas, similar to the process outlined below for A4.

As of the 2015/16 analysis, A18 is out of a deficit position.

In October 2014, the Ministry of Forests, Lands and Natural Resource Operations approved an update to the A4 recruitment strategy, which includes spatially located Landscape Biodiversity Areas. As per the approval letter, "... the proposed landscape biodiversity areas are representative of the entire A4 mBEC and ... the strategy helps to reduce the fragmentation of natural forest areas while improving mid-term timber supply". This strategy will now be employed to identify spatial retention areas in the other mBEC units currently in Old Forest deficit.

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

The Landscape Objectives Working Group (LOWG), which has representation from the Ministry of Forests, Lands and Natural Resource Operations (formerly the Ministry of Agriculture and Lands - Integrated Land Management Bureau (ILMB), and 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 1 below.

Table 1: PG District – Variance - Old Forest by Natural Disturbance Unit Merged BEC, as at Sept. 2016

| Natural Disturbance Unit (NDU) | NDU / Merged BEC ¹ | Total CFLB (ha) | Target: Science Mean | | Variance: Legal Objective | | Current Status | | | |
|--------------------------------|-------------------------------|-----------------|----------------------|----------|---------------------------|----------|-------------------|-----------|-------------------|-----------------|
| | | | % | Hectares | % | Hectares | Current Area (ha) | % of CFLB | Surplus / Deficit | Licensee Action |
| Boreal Foothills | A1 | 7,031 | n/a | n/a | 33% | 2,320 | 5,579 | 79% | 3,259 | communicate |
| McGregor | A2 | 15,421 | 52% | 8,019 | 26% | 4,010 | 7,526 | 49% | 3,516 | communicate |
| McGregor | A3 | 67,991 | 52% | 35,355 | 12% | 8,159 | 24,988 | 37% | 16,829 | no action |
| McGregor | A4 | 219,419 | 52% | 114,098 | 26% | 57,049 | 77,253 | 35% | 20,204 | no action |
| Moist Interior | A5 | 14,086 | 51% | 7,184 | 29% | 4,085 | 3,929 | 28% | (156) | lockdown |
| Moist Interior | A6 | 16,388 | 51% | 8,358 | 29% | 4,752 | 6,647 | 41% | 1,894 | communicate |
| Moist Interior | A7 | 4,182 | 25% | 1,046 | 17% | 711 | 1,355 | 32% | 644 | communicate |
| Moist Interior | A8 | 9,306 | 25% | 2,327 | 12% | 1,117 | 1,976 | 21% | 859 | communicate |
| Moist Interior | A9 | 34,149 | 25% | 8,537 | 12% | 4,098 | 5,217 | 15% | 1,120 | communicate |
| Moist Interior | A10 | 40,555 | 25% | 10,139 | 17% | 6,894 | 12,654 | 31% | 5,759 | no action |
| Moist Interior | A11 | 128,589 | 25% | 32,147 | 12% | 15,431 | 31,091 | 24% | 15,660 | no action |
| Moist Interior | A12 | 161,502 | 25% | 40,376 | 12% | 19,380 | 33,540 | 21% | 14,159 | no action |
| Moist Interior | A13 | 360,663 | 25% | 90,166 | 12% | 43,280 | 85,265 | 24% | 41,985 | no action |
| Wet Mountain | A14 | 124,795 | 87% | 108,572 | 50% | 62,398 | 101,201 | 81% | 38,804 | no action |
| Wet Mountain | A15 | 16,375 | 87% | 14,246 | 84% | 11,755 | 11,293 | 69% | (2,462) | lockdown |
| Wet Mountain | A16 | 35,543 | 87% | 30,922 | 26% | 9,241 | 14,972 | 42% | 5,731 | no action |
| Wet Mountain | A17 | 120,101 | 87% | 104,488 | 50% | 60,050 | 85,369 | 71% | 25,319 | no action |
| Wet Trench | A18 | 2,211 | 84% | 1,857 | 80% | 1,769 | 1,772 | 80% | 4 | lockdown |
| Wet Trench | A19 | 63,579 | 84% | 53,406 | 48% | 30,518 | 52,568 | 83% | 22,050 | no action |
| Wet Trench | A20 | 97,469 | 84% | 81,874 | 80% | 77,975 | 84,008 | 86% | 6,033 | no action |
| Wet Trench | A21 | 116,809 | 84% | 98,120 | 48% | 56,068 | 69,312 | 59% | 13,244 | no action |
| Wet Trench | A22 | 28,022 | 80% | 22,418 | 53% | 14,852 | 18,718 | 67% | 3,866 | no action |

¹ See Appendix 1 for BEC description and NDU / Merged BEC Maps

| | | | | | | | | | | |
|---------------|-----|------------------|-----|------------------|-----|----------------|----------------|-----|----------------|-------------|
| Wet Trench | A23 | 150,221 | 80% | 120,177 | 53% | 79,617 | 95,607 | 64% | 15,990 | no action |
| Wet Trench | A24 | 132,005 | 80% | 105,604 | 30% | 39,602 | 35,167 | 27% | (4,434) | lockdown |
| Wet Trench | A25 | 158,896 | 80% | 127,117 | 46% | 73,092 | 74,789 | 47% | 1,697 | communicate |
| Totals | | 2,344,725 | | 1,226,553 | | 688,233 | 941,794 | | 251,572 | |

Thresholds for Action in NDU's

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

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

Table 2: TFL30 - Old Forest by Natural Disturbance Unit Merged BEC (Legal Objective), as at April 1st 2016

| Landscape Unit | NDT | BEC Subzones | Old Forest Stage (years) | Status (%) as at Apr. 1st 2014 | Status (%) as at Apr. 1st 2015 | Status (%) as at Apr. 1st 2016 | Target % |
|----------------|-----|--------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|----------|
| Averil | 3 | SBSwk1 | Old>140 | 22.9% | 17.6% | 18.6% | > 11% |
| | 3 | SBSmk1 | Old>140 | 23.4% | 25.5% | 24.4% | >11% |
| | 1 | SBSvk | Old>250 | 27.5% | 27.7% | 24.9% | > 13% |
| | 1 | ESSFwk2 | Old>250 | 0% | 0% | 0% | > 19% |
| Seebach | 2 | SBSvk | Old > 250 | 2.3% | 2.2% | 2.1% | > 9% |
| | 3 | SBSwk1 | Old > 140 | 52.9% | 51.1% | 51.1% | > 11% |
| | 1 | ESSFwk2 | Old > 250 | 3.6% | 3.6% | 3.6% | > 19% |
| | 1 | ESSFwc3 | Old > 250 | 0% | 0% | 0% | >19% |
| Woodall | 2 | SBSvk | Old > 250 | 0.4% | 0.5% | 0.5% | > 11% |
| | 1 | ICHvk2 | Old > 250 | 3.4% | 5.9% | 5.9% | > 13% |
| | 1 | ESSFwk2, wc3 (wcp) | Old > 250 | 5.7% | 3.0% | 19.8% | > 19% |

A timber supply analysis was completed in late 2013 on TFL30. The results indicated very little area that is currently greater than 250 years in age, suggesting that either these types of stands do not naturally occur, they occurred only on more productive sites within the THLB and that many of these sites have been harvested, or that the inventory is not accurately representing these stands. As the first two possibilities would be very difficult to test, an inventory analysis was completed to test the third possibility. This analysis indicated that a wide range of individual tree ages exist in stands with an inventory age of 120 and greater, and that these stands generally contain trees that are substantially older than the inventory age. A consulting landscape ecologist reviewed the analysis and recommended the following:

- Stands with an adjusted inventory age of 140 and greater should be used to meet old seral stage requirement for the purpose of timber supply modeling and if spatial identification of old forest areas are conducted then 120 – 140 yr old stands should be used if these stands can help form a large contiguous area; and
- When the VRI is updated, Canfor should explore opportunities to use tree ages within a stand to create a separate attribute that reflects structural stage and that if trees are present that are over 200 yrs than

these should be assigned to a “old forest” structural stage and that these stands be used to meet the old seral requirement.

Canfor’s Forest Stewardship Plan was amended in early February 2014 to include a strategy for identifying spatial Draft Old Growth Management Areas (OGMAs) on TFL30 by December 31st 2015, supported by the above recommendations. The FSP was subsequently amended to target submission of the Draft OGMAs by June 30th 2016. The Draft OGMAs may include stands with seral stages (ages) that are aligned with the seral stages in the PG TSA Biodiversity Order, rather than the Provincial Non-Spatial Biodiversity Order. However, until such time as the Draft OGMAs are approved, the seral stages for BEC subzones and variants on TFL30 will continue to be managed as per the Provincial Non-Spatial Old Growth Objective.

Indicator 1.1.3(b) Forest area by seral stage or age class (young patch)

| Indicator Statement | Target and Variance |
|--|---|
| Maintain a variety of young patch sizes in an attempt to approximate natural disturbance | <u>Target:</u> As per the "Landscape Biodiversity Objectives for the PG TSA" (PG District); and to trend towards the achievement of the young forest patch size targets by NDU as per Table in the SFMP <u>Variance:</u> As per Targets. |
| Was the Target Met? No | |
| Action Plan: As presented in text and tables below | |

The indicator addresses the pattern of young forest patches distributed across the landscape, where young forests are defined as stands 0 to 20 years of age. In order to remain within the natural range of variability of the landscape and move toward sustainable management of the forest resource, it is important to develop and maintain young patch size targets based on historical natural disturbance patterns. This indicator monitors the consistency of harvesting patterns compared to the natural patterns of the landscape.

Table 3: PG DFA - Young Patch Distribution

| PATCH SIZE | Current Status as of March 31st 2015 (next update due in 2020) | | | | | Future Patch Size Trending |
|--------------------------------------|---|------------|------------|--------------|---------------|---|
| | < 50 | 50-100 | 100 - 1000 | > 1000 | Total | |
| Moist Interior Plateau Target | 5% | 5% | 20% | 70.0% | 100.0% | The trend over target for patches >1000 hectares is a result of salvaging mountain pine-beetle attacked stands. As of 2015, this has largely been addressed in the PG District. Therefore, the strategy will be to increase the proportion of patches in the 100-1000 ha category, without adding further to the >1000 ha openings. |
| PG (ha) | 8,263 | 7,118 | 20,270 | 132,132 | 167,783 | |
| PG (%) | 5% | 4% | 12% | 79% | 100% | |
| % reported from 2010 analysis | 6% | 7% | 14% | 73% | 100% | |
| Moist Interior Mtn Target | 20% | 10% | 30% | 40% | 100% | The trend in this unit has been towards targets, overall. The strategy for 2016-2020 will be to avoid creating more patches >1000 ha in size and to create more patches in the <50 ha category. |
| PG (ha) | 234.6 | 598.5 | 1,732.6 | 2,405.5 | 4,971 | |
| PG (%) | 5% | 12% | 35% | 48% | 100% | |
| % reported from 2010 analysis | 13% | 30% | 28% | 29% | 100% | |
| McGregor Plateau Target | 10% | 5% | 45% | 40% | 100% | The trend over target for patches >1000 hectares is a result of salvaging mountain pine-beetle attacked stands. Although the strategy will be to avoid creating more patches >1000 ha in size, it is worth noting that there is currently a high incidence of spruce bark beetle within this unit. |
| PG (ha) | 2,805.6 | 2,790.9 | 10,551.5 | 17,217.0 | 33,365 | |
| PG (%) | 8% | 8% | 32% | 52% | 100% | |
| % reported from 2010 analysis | 11% | 20% | 34% | 35% | 100% | |
| Wet Trench Valley Target | 20% | 10% | 60% | 10% | 100% | The 2015 figures are being confirmed, as this unit is located in areas that didn't have much pine and were therefore largely |
| PG (ha) | 2,622.3 | 5,028.3 | 19,793.2 | 53,173.7 | 80,618 | |

| PATCH SIZE | Current Status as of March 31st 2015 (next update due in 2020) | | | | | Future Patch Size Trending |
|--------------------------------------|---|------------|------------|------------|-------------|---|
| | < 50 | 50-100 | 100 - 1000 | > 1000 | Total | |
| PG (%) | 3% | 6% | 25% | 66% | 100% | untouched by harvesting for the past five years; therefore, the drastic trend towards patches >1000 ha bears confirmation. |
| % reported from 2010 analysis | 18% | 27% | 47% | 8% | 100% | |
| Wet Trench Mtn Target | 20% | 10% | 60% | 10% | 100% | As with the Wet Trench Valley unit, the 2015 figures are being confirmed as these areas have been largely untouched for the past five years and the trend towards patches >1000 ha does not make sense. |
| PG (ha) | 615.5 | 726.3 | 4,033.0 | 12,714.5 | 18,089 | |
| PG (%) | 3% | 4% | 22% | 70% | 100% | |
| % reported from 2010 analysis | 15% | 31% | 38% | 15% | 100% | |
| Wet Mtn Target | 20% | 10% | 60% | 10% | 100% | There has not been much harvesting activity in the Wet Mountain unit over the past five years. The strategy will be to avoid creating patches of 50-100 ha and minimize patches <50 ha. |
| PG (ha) | 813 | 850 | 1,144 | 0 | 2,807 | |
| PG (%) | 29% | 30% | 41% | 0% | 100% | |
| % reported from 2010 analysis | 16% | 38% | 39% | 7% | 100% | |

Table 4: TFL30 DFA - Young Patch Distribution, 2015/16

| Landscape Unit | Patch Size Category | Patch Size Class (ha) | Target Distribution Range (%) | 2004 Status (%) | 2006 Status (%) | 2012 Status (%) | 2013 Status (%) | 2014 Status (%) | 2015 Status (%) | 2016 Status (%) | Trend: | Actions: |
|----------------|---------------------|-----------------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|--|
| Averil | Small | <40 | 10-20 | 6.5 | 9.5 | 11.2 | 11.2 | 7.1 | 6.3 | 8.2 | Toward | Create more Small and Large patches to offset Medium - without creating XL patches. Conduct annual analysis to determine re-distribution and to ensure categories trend towards target ranges. |
| | Medium | 40-249 | 10-20 | 46.3 | 56.0 | 51.5 | 42.8 | 42.6 | 32.0 | 35.2 | Away | |
| | Large | 250-1000 | 60-80 | 32.7 | 26.9 | 17.4 | 27.9 | 38.7 | 20 | 40.2 | Toward | |
| | Extra Large | >1000 | 0 | 14.4 | 7.6 | 20.0 | 18.2 | 11.6 | 11.8 | 16.4 | Away | |
| Seebach | Small | <40 | 30-40 | 4.8 | 3.8 | 9.4 | 12.2 | 19.5 | 14.5 | 13.5 | Away | Create Small patches to trend in desired direction. Continue to avoid creation of XL patches. Conduct annual analysis to determine re-distribution and to ensure categories trend towards target ranges. |
| | Medium | 40-79 | 30-40 | 17.2 | 17.2 | 39.3 | 41.8 | 32.1 | 36.6 | 36.1 | Achieving | |
| | Large | 80-250 | 20-40 | 29.1 | 33.4 | 40.2 | 34.7 | 37.9 | 34.8 | 35.7 | Achieving | |
| | Extra Large | >250 | 0 | 48.9 | 45.7 | 11.1 | 11.3 | 10.5 | 14.1 | 14.8 | Away | |
| Woodall | Small | <40 | 30-40 | 5.4 | 13.7 | 22.7 | 22.9 | 17.3 | 16.3 | 15.4 | Away | Create Small patches and some Medium patches to balance with Large. Avoid further creation of XL patches. Conduct annual analysis to determine re-distribution and to ensure categories trend towards target ranges. |
| | Medium | 40-79 | 30-40 | 19.6 | 30.8 | 61.3 | 55.4 | 43.3 | 49.9 | 33.0 | Achieving | |
| | Large | 80-250 | 20-40 | 29.3 | 16.2 | 16.0 | 21.7 | 21.4 | 18.9 | 38.4 | Achieving | |
| | Extra Large | >250 | 0 | 45.6 | 39.4 | 0.0 | 0.0 | 18.0 | 15.0 | 13.3 | Toward | |

Indicator 1.1.4(a) Degree of within-stand structural retention (stand-level retention)

| Indicator Statement | Target and Variance |
|---|---|
| Percent of stand structure retained across the DFA in harvested areas | Target: Average of 7% annually for blocks harvested within the DFA, with a minimum of 3.5% Variance: 0 |
| Was the target met? Yes | |

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.

Retention levels in each block are documented in the associated Site Plan and reported 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, 2015 and March 31, 2016 in the DFA is found in Table 5.

Table 5: Stand Level Retention in Harvested Areas, 2015/16

| DFA | Gross Block Area (ha)* | Associated Total Retention (ha)** | Average % Retained | Total Number of Blocks | Blocks Achieving 3.5% Min.*** | % of Blocks Achieving 3.5% Minimum |
|------------------------|------------------------|-----------------------------------|--------------------|------------------------|-------------------------------|------------------------------------|
| Prince George District | 11,423.1 | 1152.4 | 10.1% | 126 | 126 | 100% |
| TFL30 | 1,901.3 | 175.0 | 9.2% | 30 | 30 | 100% |
| TOTAL | 13,324.4 | 1,327.4 | 10.0% | 156 | 156 | 100% |

* Only blocks >15 ha with completed harvesting measured

** Associated total retention includes wildlife tree patches, riparian and dispersed tree retention

Indicator 1.1.4(c) Degree of within-stand structural retention (riparian management requirements)

| Indicator Statement | Target and Variance |
|--|--|
| Number of non-conformances where forest operations are not consistent with riparian management requirements as identified in operational plans | <u>Target:</u> 0 <u>Variance:</u> 0 |
| Was the target met? No | |
| Action Plan: As described in text below | |

Riparian management areas provide opportunities for connectivity of forested cover along waterways, which are generally areas with high value for wildlife habitat and movement. Operational plans influenced by riparian areas contain site specific commitments that range from 100% protection to 100% removal of merchantable trees, generally with efforts to manage existing understory trees and shrubs.

Canfor completed harvesting on 126 blocks during the reporting period, encompassing 1038 riparian features. On five blocks harvested or treated within the DFA during the reporting period, riparian management requirements were not met:

APN-PG-2015-2820 – approx. 0.15 ha of riparian reserve was bunched (September 2015). A joint field visit (Canfor harvesting supervisor, contractor, and FLRNO Compliance and Enforcement). The prework form was updated to add a line to prompt and record the review of all road crossings, boundary ribbons, or other significant features. An alert was communicated to all Canfor FMG groups to review the incident and communicate the addition of the line to the prework form.

APN-PG-2015-2868 – forwarder travelled through three MFZ. Situation was reviewed with the harvesting contractor; prework form was updated to ask about re-ribboning of MFZ that were removed during road construction. Debris was removed from the stream channels, and the forwarder tracks were treated with hay and with seed within the MFZ to minimize erosion and siltation.

APN-PG-2015-2826 – sediment control measures were implemented on an S4 crossing in MUS163, as ID'd during external audit; the tail ditch was extended into the bush, hay bale dams (silt fences) were installed, and seed was applied to exposed soils.

APN-2015-2897 – A buncher crossed a deactivated S4 stream crossing on an existing built road. The operator was preworked in the field at the designated muster station for the block. He was to follow an existing road to the block where falling of timbered road right of way would commence, but missed a turn at a road junction continued walking down the incorrect road (still part of the block access) to a proposed S4 bridge crossing

(previously crossed but currently deactivated). The operator did not see any ribbon (machine free or gate/barber pole) that would indicate he was about to cross a stream – the road up to this point had multiple similar cross ditches. The operator crossed the stream on a combination of snow and ice and continued down the road until he saw some machine free ribbon tied across the road. He immediately stopped and reviewed his map and realized that he had missed the right turn and was following the incorrect road. The operator went back to the Muster station and drove to where he had cell coverage and informed his supervisor what happened. Because of the snow and ice at the site there was no damage done to the stream banks. Field Ops Coordinator reviewed the situation with her team and updated the process to note that existing crossings are to be field-identified with ribbon (either gates or barber poles). The harvesting supervisor and contractor reviewed the trespass documentation, reviewing the importance of operators knowing where they are and where their activities are intended to occur.

Indicator 1.2.1 Degree of habitat protection for selected focal species, including species at risk

Indicator 1.2.2 Degree of suitable habitat in the long term for selected focal species, including species at risk

| Indicator Statement | Target and Variance |
|---|------------------------------|
| Percent of forest management activities consistent with current Best Management Practices for Species of Management Concern | Target: 100% Variance: 0% |
| Was the target met? Yes | |

This indicator evaluates the success of implementing specific management strategies for Species of Management Concern, including Species at Risk, as prescribed in operational plans. Appropriate management of these species and their habitat is crucial in ensuring populations of flora and fauna are sustained in the DFA.

Canfor must ensure:

- Key staff are trained in Species at Risk (SAR) identification;
- SAR listings are reviewed and management strategies are updated periodically
- Strategies are implemented via operational plans.

Canfor currently has systems in place to evaluate the consistency of forest operations with operational plans. Tracking this consistency will ensure problems in implementation are identified and corrected in a timely manner.

Table 6: Forest Operations Consistent with Species at Risk and Sites of Biological Importance, 2015/16

| DFA | Number of forest operations with management strategies for Species of Management Concern | | | | | Forest operations consistent with identified strategies | % in DFA* |
|--------------|--|----------|------------|---------------|----------|---|-------------|
| | Planning / Permitting / Fieldwork | Roads | Harvesting | Silvi-culture | Total | | |
| PG District | 3 | 0 | 1 | 0 | 4 | 4 | |
| TFL30 | 0 | 0 | 0 | 0 | 0 | 0 | |
| TOTAL | 3 | 0 | 1 | 0 | 4 | 4 | 100% |

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

Western Toad – On three blocks, Western Toads were observed by field staff. Reserves were prescribed to on riparian and wetland features to protect toad habitat.

Osprey nest – An active osprey nest was identified following road construction in an area to be harvested; the nest had not been identified during fieldwork. A one-tree length buffer was placed around the nest, and was designated as a reserve. Timing restrictions were also implemented in that no high impact activities

could occur within a 200m radius of the next site from March 1st to August 15th.

Red Tailed Hawk nest – during fieldwork, a red-tailed hawk nest was identified. A 50m reserve was placed around the nest and timing restrictions were implemented to ensure that harvesting did not take place within 100m of the nest between May 1st and August 15th.

Indicator 1.2.3 Proportion of regeneration comprised of native species

Indicator 1.3.1 Genetic diversity (*not a core indicator*)

| Indicator Statement | Target and Variance |
|---|-------------------------------|
| Artificial regeneration will be consistent with provincial regulations and standards for seed and vegetative material use | Target: 100% Variance: -5% |
| Was the Target Met? Yes | |

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

Table 7 details the areas planted within the DFA in accordance with the Chief Forester's Standards for Seed Use for this reporting period. On TFL30, over 2.6 million seedlings were planted and in the Prince George District, over 12.6 million seedlings were planted.

Table 7: Compliance with Chief Forester's Standards for Seed Use, 2015/16

| DFA | Total Area Planted (ha) | Area Planted in Accordance with Chief Forester's Standards* (ha) | Total % DFA** |
|---------------|-------------------------|--|---------------|
| PG (District) | 9,137.7 | 9,132.5 | 99.9% |
| TFL30 | 1,773.8 | 1,773.8 | 100.0% |
| TOTAL | 10,911.5 | 10,906.3 | 99.9% |

* 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 1.4.1 Proportion of identified sites with implemented management strategies

| Indicator Statement | Target and Variance |
|--|------------------------------|
| Percent of forest management activities consistent with management strategies for protected areas and sites of biological significance as contained in operational plans | Target: 100% Variance: 0% |
| Was the target met? Yes | |

While ecosystem conservation is the coarse-filter approach to biodiversity management, species diversity is the fine-filter approach. For most species, forest managers can influence habitat only, not species populations. To account for the degree of habitat protection for selected focal species, including at risk species, this indicator looks at the proper execution of operational plans where those plans contain management strategies for sites of biological significance.

Licensees participate in higher level and strategic planning that has delineated a series of protected areas (i.e. parks, ecological reserves) and draft old growth management areas within the DFA. This achieved the geographic and ecological goals of provincial Protected Areas Strategies (PAS), providing representation of the cross-section of ecosystems and of old forest attributes. Ecosystems of special biological significance have generally been given a high priority for inclusion in the protected area strategy. Timber harvesting, mining and hydroelectric development are usually not permitted within protected areas and other resource development activities, such as grazing and commercial tourism development, are permitted only in specified areas and under strict guidelines.

Table 8: Proportion of Identified Sites with Implemented Management Strategies, 2015/16

| Category | # of forest management activities with prescribed management strategies for: | # of forest management activities consistent with management strategies for: |
|----------------------------------|--|--|
| Protected areas | 0 | 0 |
| Sites of Biological Significance | 2 | 2 |
| Total | 2 | 2 |
| Total % | | 100% |

Osprey nest – An active osprey nest was identified following road construction in an area to be harvested; the nest had not been identified during fieldwork. A one-tree length buffer was placed around the nest, and was designated as a reserve. Timing restrictions were also implemented in that no high impact activities could occur within a 200m radius of the nest site from March 1st to August 15th.

Red Tailed Hawk nest – during fieldwork, a red-tailed hawk nest was identified. A 50m reserve was placed around the nest and timing restrictions were implemented to ensure that harvesting did not take place within 100m of the nest between May 1st and August 15th.

Indicator 1.4.2 Protection of identified sacred and culturally important sites

Indicator 6.2.1 Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values

| Indicator Statement | Target and Variance |
|--|--|
| % of identified Aboriginal forest values, knowledge and uses considered in forestry planning processes | Target: 100% of known forest values, knowledge and uses considered Variance: 0% |
| Was the target met? Yes | |

Meaningful relationships and open communication with local Aboriginal communities help to ensure that areas of cultural importance are managed in a way that retains their traditions and values. This indicator recognizes the importance of managing and protecting culturally important resources and values during forestry operations. Aboriginals, with the benefit of local and traditional knowledge, may provide valuable information concerning the specific location and use of these sites as well as the specific forest characteristics requiring protection or management. The intent of the indicator is to manage and/or protect those truly important sites, thus there is a degree of reasonableness in identifying the sites.

Table 9: Percent of Identified Aboriginal Forest Values, Knowledge and Uses Considered, 2015/16

| | # of Aboriginal forest values, uses & knowledge gathered during planning process | # of Aboriginal forest values, uses & knowledge considered during planning process |
|----------------|--|--|
| Knowledge | 0 | 0 |
| Uses | 1 | 1 |
| Values | 3 | 3 |
| Total | 4 | 4 |
| Total % | | 100% |

Canfor staff met or corresponded with various First Nations throughout the reporting period.

A forestry consultant for one First Nation provided a written response to an information sharing package sent by Canfor staff regarding proposed blocks and roads. Values were expressed relating to stand level biodiversity, chemical brushing treatments, and the retention of debris piles for small mammal habitat. A written response was provided by Canfor to the consultant and copied to the represented First Nation, Canfor Silviculture staff and the Ministry's Prince George District First Nations Relations Advisor.

Apart from direct communications with First Nations, cultural heritage features may be identified by field staff or through archaeological impact assessments (AIA's). Management strategies included avoidance (ie. moving the harvest boundary to exclude culturally modified trees – CMT's), or stubbing or harvesting CMT's if they have been attacked by mountain pine beetle. In all instances, AIA's and proposed management strategies are referred to the relevant First Nations.

Indicator 2.1.1(a) Reforestation success (regeneration delay)

| Indicator Statement | Target and Variance |
|--|--|
| The regeneration delay, by area, for stands established annually | <u>Target:</u> 100% of Net Area Reforested (NAR) regenerated within 3 years (artificial) and 6 years (natural) from harvest commencement. <u>Variance:</u> 0% |
| Was the target met? Yes | |

Prompt reforestation of harvested areas is a major component of sustainable forest management. Prompt reforestation ensures that the productive capacity of the forest land base to grow trees is maintained. Promptness also aids in providing young trees a head start against competing vegetation, helping to reduce the need for manual or chemical brushing treatments.

As is demonstrated in Table 10 during this reporting period, Canfor met the target of regenerating the Net Area to be Reforested within 3 years of harvest commencement. As all the areas were subject to planting (artificial regeneration), natural regeneration is not reported.

Canfor's average time (weighted by area) was 1.7 years (PG District) and 1.5 years (TFL30) from harvest start date to declaration of regeneration delay met.

Table 10: Percent of area regenerated within 3 years after the commencement of harvesting

| DFA | Harvesting (ha) on NAR commenced from April 1, 2012 to March 31, 2013 | Of the area harvested, net area regenerated (ha) * by reporting year (2015/16) | % in DFA** |
|--------------|---|--|-------------|
| PG District | 6,490.0 | 6,490.0 | |
| TFL30 | 1,475.9 | 1,475.9 | |
| TOTAL | 7,965.9 | 7,965.9 | 100% |

* Area qualified as regenerated as soon as planting takes place

** % = (Total area regenerated/ total area harvested) X 100

Indicator 2.1.1(b) Reforestation success (free growing requirements)

| Indicator Statement | Target and Variance |
|--|--|
| The percent of block area that meets free growing requirements as identified in site plans | <u>Target:</u> 100% <u>Variance:</u> 0% |
| Was the target met? Yes | |

This indicator measures the percentage of harvested blocks that meet free growing obligations across the DFA. A free growing stand is a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees (BC MOF 1995b). A free growing assessment is conducted on stands based on the time frame indicated by the site plan. If a survey indicates that the stand has

not achieved free growing status by the required date, corrective actions will be prescribed immediately in order to remedy the situation while still meeting the late free growing deadline.

While this percentage is an important legal requirement, 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 April 1, 2015 to March 31, 2016 the target for this measure was met as demonstrated in Table 11.

Table 11: Cut Block Area that Meets Free Growing Requirements as Identified in Site Plans

| DFA | Cut Block Area Required to Meet Late Free Growing Status (ha) | Cut Block Area Meeting Free Growing Status (ha) | % in DFA* |
|--------------|---|---|-------------|
| PG District | 6,852.3 | 6,852.3 | 100% |
| TFL30 | 889.8 | 889.8 | 100% |
| TOTAL | 7,742.1 | 7,742.1 | 100% |

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

Indicator 2.2.1(a) Additions and deletions to the forest area

| Indicator Statement | Target and Variance |
|---|---|
| The % of gross land base in the DFA converted to non-forested land use through forest management activities | <u>Target:</u> <3% of the gross land base in the DFA <u>Variance:</u> 0% |
| Was the target met? Yes | |

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

Table 12: Percentage of Gross Land Base in the DFA converted to Non-Forest Land Use Through Forest Management Activities (2015/16)

| Gross Area = 1,509,351 ha | 2014/15 | 2015/16 | Forecast Future Status ¹ |
|---------------------------|---------|---------|-------------------------------------|
| Ha | 27,324 | 29,594 | 43,802 |
| Percent of Gross Area | 1.9% | 2.1% | 2.9% |

¹ Future Status is based on historic road construction of approximately 500 ha of roads per year, over a period of 20 years, as calculated for the PG SFMP

Indicator 2.2.2 Proportion of the calculated long-term sustainable harvest level that is actually harvested

| Indicator Statement | Target and Variance |
|---|---|
| Percent of volume harvested compared to allocated harvest level | <u>Target:</u> 100% over 5 years <u>Variance:</u> +10% |
| Was the target met? Yes | |

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

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

Table 13: Cut Level Volumes Compared to Apportionment across the Timber Supply Area

| Licence | Cut Control Period Start | Number of Years into Cut Control Period | 5 year Total of AAC Volume | Total Volume Applied Against Cut Control by Dec. 31/15 | Overall % of 5 Year Cut Control for DFA* |
|---------|--------------------------|---|----------------------------|--|--|
| A18165 | 2015 | 1 | 5,524,290 | 0 | 0 |
| A18157 | 2011 | 5 | 2,941,115 | 1,037,797 | 101.2% |
| A40873 | 2012 | 4 | 7,988,855 | 1,872,325 | 66.6% |
| TFL30 | 2015 | 1 | 1,945,630 | 414,212 | 21.3% |

*% = (Actual cut level volume / AAC volume apportioned) X 100

Indicator 3.1.1 Level of soil disturbance

| Indicator Statement | Target and Variance |
|---|---|
| Percent of harvested blocks meeting soil disturbance objectives identified in plans | <u>Target:</u> 100% of blocks meet soil disturbance objectives <u>Variance:</u> 0% |
| Was the target met? Yes | |

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

As shown in the table below, 100% of forest operations conducted between April 1, 2015 and March 31, 2016 within the DFA are consistent with soil conservation standards as identified in the operational plans.

Table 14: Harvested Blocks Meeting Soil Disturbance Objectives Identified in Plans, 2015/16

| Forest Operations Consistent with Soil Conservation Standards | | | |
|---|----------------------------|--|-------------|
| DFA | Number of Blocks Harvested | Number of Blocks Harvested Consistent with Soil Conservation Standards | |
| PG District | 169 | 169 | |
| TFL30 | 40 | 40 | |
| TOTAL | 209 | 209 | 100% |

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

Table 15: Trend of Harvested Blocks Meeting Legal Soil Disturbance Objectives

| | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| PG | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| TFL30 | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Indicator 3.1.2 Level of downed woody debris

| Indicator Statement | Target and Variance |
|---|---|
| Percent of cut blocks where post harvest CWD levels are within the targets contained in Plans | <u>Target:</u> 100% of blocks harvested annually will meet targets <u>Variance:</u> -10% |
| Was the target met? Yes | |

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

Canfor has met the target of 100% consistency with CWD requirements in operational plans for the operating period of April 1, 2015 to March 31, 2016 (Table 16). Canfor will continue to implement contractor training, pre-work checklists, interim inspections, and final reviews to ensure targets continue to be met.

Table 16: Percent of Cut Blocks Where Post Harvest Coarse Woody Debris Levels are Within Targets Contained in Plans

| Total Number of Blocks Harvested with CWD Strategies | Number of Blocks Harvested Consistent with CWD Strategies | Overall %** |
|--|---|-------------|
| 209 | 209 | 100% |

* % = (Blocks harvested in accordance with prescribed strategies/total blocks harvested with CWD strategies) X 100

Indicator 3.2.1(a) Proportion of watershed or water management areas with recent stand-replacing disturbance

| Indicator Statement | Target and Variance |
|--|--|
| The percentage of watersheds with active operations that have had a watershed assessment completed | <u>Target:</u> 100% <u>Variance:</u> 0% |
| Was the target met? Yes | |

Water quality and quantity can be affected by stand-replacing disturbances (human and natural-caused). The effects are normally highest in the initial post-disturbance years and diminish over time as regenerating forest cover is established. The critical threshold at which the disturbance begins to affect water values varies according to topography, soil properties, vegetation types, and climate. Certain watersheds can be classified as more sensitive to the impacts of disturbance either because of their environmental and climatic attributes or because of their inherent value to aquatic life and communities that are dependent on the water. The peak flow of a watershed is directly influenced by the amount of area that is recently harvested or otherwise recently disturbed (Equivalent Clear-cut Area or ECA). These disturbed areas accumulate more snow and subsequently can deliver more water as the snow melts more rapidly in the spring.

Predicting the potential impacts of increased peak flow in a particular watershed requires an assessment of the factors that contribute to the sensitivity of the watershed. Watersheds in the northern interior of British Columbia have a wide range of sensitivity to peak flows. The sensitivity of a watershed can be evaluated by examining five

parameters: peak flow buffering (lakes and wetlands), terrain stability, watershed relief, channel pattern and channel stability. A full assessment by a qualified professional may be warranted in some situations but the process is time consuming and costly. Employing this approach across the DFA would be cost prohibitive. The process described here can be completed as part of the planning for proposed harvesting in the DFA. It involves evaluating the risk to a particular watershed.

Where the Peak Flow Index (PFI) is expected to be above the threshold value as a result of a combination of past and proposed harvesting, Canfor will initiate a watershed sensitivity analysis as part of a risk assessment procedure (Dobson 2009). This assessment will result in a risk rating for individual watersheds. If a the watershed risk ranks high through this process, a qualified professional will be consulted to provide a more thorough review and recommendations on proposed harvesting and road construction.

During the reporting period, Canfor has worked with a professional hydrologist to review watershed boundaries and update sensitivities, based on the fact that hydrological science has changed over the past decade. The reports and maps provided by the professional hydrologist are being incorporated into Planning and Operations activities.

Table 17: Active Watersheds with Risk Evaluation Completed, 2015/16

| DFA | Total Number of Watersheds With Active Operations | Total Number of Watersheds with Assessment Completed | DFA% |
|--------------|---|--|-------------|
| PG District | 37 | 37 | |
| TFL30 | 12 | 12 | |
| TOTAL | 49 | 49 | 100% |

Indicator 3.2.1(b) Proportion of watershed or water management areas with recent stand-replacing disturbance

| Indicator Statement | Target and Variance |
|---|--|
| The percentage of active operations within high-risk watersheds that implement the recommendations of a hydrologic assessment | <u>Target:</u> 100% <u>Variance:</u> 0% |
| Was the target met? Yes | |

Table 18: Percent of Active Operations Within High-Risk Watersheds that Implement the Recommendations of a Hydrologic Assessment

| DFA | Total number of active operations within high risk watersheds | Number of high risk watersheds that have had a watershed assessment completed by a professional | Number of these operations that had implemented the recommendations of a hydrologic assessment | DFA% |
|-------------|---|---|--|------|
| PG District | 6 | 6 | 6 | 100% |
| TFL30 | 3 | 3 | 3 | 100% |

During the 2015/16 reporting period, blocks were harvested within nine watersheds that are deemed sensitive: Angusmac and Upper Angusmac Creek, Chuchinka, Upper Naver, Upper Stone Creek and West Torpy River within the PG District and Seebach Creek, Herring Creek and Olsson Creek within TFL30. A professional hydrologist has assessed and updated the watershed sensitivities. As a result of harvesting during the reporting period, the current ECA in these watersheds remains below the recommended maximum, with the exception of Upper Stone Creek. Areas with mountain pine beetle-killed volume in the Upper Stone Creek watershed have been harvested and will be promptly reforested to hasten hydrological recovery. Future harvest scheduling has been modified to manage ECAs below the recommended maximum, to allow for hydrologic recovery (ie. growth of the regenerated stands).

Indicator 3.2.1(c) Proportion of watershed or water management areas with recent stand-replacing disturbance

| Indicator Statement | Target and Variance |
|--|------------------------------|
| Percentage of high hazard drainage structures in watersheds with identified water quality concerns that have mitigation strategies implemented | Target: 100% Variance: 0% |
| Was the target met? Yes | |

Sedimentation can damage water bodies by degrading spawning beds, increasing turbidity, and reducing water depths. Forest management activities may create unnatural inputs of sedimentation into water bodies. In addition to the effects of roads, sedimentation may also occur from slope failures as a result of forestry activities. Once sedimentation occurrences are detected, mitigating actions must be taken to stop further damage and rehabilitate the site. Tracking these mitigation actions contributes to sustainable forest management by evaluating where, when and how sedimentation occurs and the monitoring results of mitigation actions. Forestry personnel detect sedimentation occurrences during stream crossing inspections, road inspections, silviculture activities, and other general activities. To ensure consistency and quality of monitoring and mitigation, Canfor staff refer to an internal document, "Cutting Permit and Road Permit Erosion Control and Temporary Deactivation Standards", to guide their actions.

In 2015/16, twenty five structures were installed within high risk (high sensitivity) watersheds: Six structures in the Chuchinka Creek watershed, eight within the Upper Naver watershed, four in the Upper Stone Creek watershed, one in the Upper Seebach, and seven in the Olsson Creek watershed. No sedimentation occurrences were identified in these areas during the reporting period, nor as of the date of this annual report (December 2016). This is reflected in Table 19, below.

Table 19: High Hazard Drainage Structures with Mitigation Strategies Implemented

| DFA | Total Number of Unnatural Known Sedimentation Occurrences | Total Number of Mitigation Actions Required | Total Number of Mitigation Actions Taken | % DFA * |
|--------------|---|---|--|-------------|
| PG District | 0 | 0 | 0 | |
| TFL30 | 0 | 0 | 0 | |
| TOTAL | 0 | 0 | 0 | 100% |

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

Indicator 4.1.1(a) Net Carbon Uptake

| Indicator Statement | Target and Variance |
|--|--------------------------------|
| Areas with stand damaging agents will be prioritized for treatment | Target: 100% Variance: -10% |
| Was the target met? Yes | |

Prioritizing stands with damaging agents for treatment is part of an overall forest health strategy. Treatment of stands with damaging agents may take several forms. These may include silviculture treatments on plantations with blister rust problems or falling and burning individual stems to control bark beetles. However, the main treatment employed to manage stand damaging agents is harvesting dead or dying stands, followed by prompt reforestation where required.

At a landscape level, spruce beetle was identified as a significant forest health agent within the DFA in the Fall of 2015. As time is required to conduct ground-based fieldwork, complete consultation and stakeholder referrals, and apply for cutting and road permits, it was not feasible to actively action 100% of the damaged stands within the reporting period. In addition, there are many infrastructure-related issues to address in order to conduct sanitation or salvage treatments on stands damaged by the spruce beetle.

For the purposes of prioritizing stands for treatment, actions such as "monitor" and prioritizing of damaged stands into the harvest plans subsequent to the reporting period are included.

Table 20 shows the areas with stand damaging agents that were prioritized for treatment between April 1, 2015 and March 31, 2016 within the DFA.

Table 20: Areas with Stand Damaging Agents Prioritized for Treatment

| Total Area with Stand Damaging Agents Identified (ha) | Area with Stand Damaging Agents that are Prioritized for Treatment (ha) | % for DFA* |
|---|---|------------|
| 17,885 | 17,885 | 100% |

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

Indicator 5.1.1(b) Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA

| Indicator Statement | Target and Variance |
|---|---|
| Conformance with strategies for non-timber benefits identified in Plans | Target: No non-conformances for site level plans Variance: 0 |
| Was the target met? Yes | |

Non-timber benefits can be assessed on a harvest unit-specific basis by assessing operational plan commitments designed to reduce any potential impact of the operation on other forest users and stakeholders. These plan commitments can include specific actions to assist ranchers, trappers, guides, resort owners, mineral rights holders, private land owners, etc. to manage their licensed obligations on shared public forest land. Actions within plans can also involve public expectations related to forest access, visual quality or specific recreational or ecotourism opportunities. Additionally, plan commitments can also include actions to manage or protect sites that are culturally important, sacred or spiritual to local Aboriginals, berry pickers and gatherers of other food, fibre or medicinal plants.

Strategies which were successfully implemented in 2015/16 included:

- working with a guide/trapper to redesign proposed harvest areas to provide visual screening for the guide camp, quad trails and tree stands;
- harvesting of mountain pine beetle-killed pine adjacent to a private land parcel to mitigate fire hazard, done at the request of the owner;
- design and harvest of spruce blowdown adjacent to a private land parcel at the request of the owner and implementation of access control measures to protect nearby recreation features (Tabor Mountain Recreation Trail System);
- design of elevational travel corridors for various wildlife species within tenure area after discussion of proposed blocks with tenure holder;
- and communicating with another trapper as to precise harvest timing to ensure he had adequate time to retrieve his traps.

Table 21: Conformance with Strategies for Non-Timber Benefits Identified in Operational Plans, 2015/16

| Value | Canfor | | |
|----------------|--------------------|-------------------------------|---------|
| | Plans ¹ | Non-conformances ² | Percent |
| Guide | 2 | - | 100% |
| Lakeshore | 0 | - | - |
| Range | 0 | - | 100% |
| Recreation | 1 | - | 100% |
| Trapper | 1 | - | 100% |
| Tenure/Private | 2 | - | - |

| | | | |
|----------------|----|---|------|
| land | | | |
| Terrain | 1 | - | 100% |
| VQO | 6 | - | 100% |
| Other | 0 | - | - |
| Total | 13 | - | 100% |

¹ - Plans that have commitments identified.

² - Plans that did not meet their commitments.

Indicator 5.2.1(a) Level of investment in initiatives that contribute to community sustainability

| Indicator Statement | Target and Variance |
|--|---|
| Percent of money spent on forest operations and management in the DFA provided by North Central Interior suppliers and contractors | Target: >=90% of dollars spent in local communities (5 year rolling average) Variance: -5% |
| Was the target met? Yes | |

In addition to the many biological and ecological benefits provided by forests, social and economic benefits are also provided by forest management. Forests represent not only a return on investment (measured, for example, in dollar value, person-days, donations, etc.) for the organization but also a source of income and non-financial benefits for DFA-related workers, contractors, and others; stability and opportunities for communities; and revenue for local, provincial, and federal governments.

This target measures the amount of spending in forest related activities that occur on the DFA by local contractors/suppliers. For the purposes of this target, a local contractor or supplier is defined as one that resides within or in the vicinity of the DFA. In the PG SFMP, the North Central Interior is defined as including communities from 100 Mile House to Mackenzie (south to north) and from Smithers to McBride (west to east).

As can be seen in Table 22, this target was achieved for the reporting period of 2015/16.

Table 22: Forest Operations and Management Provided by NCI Suppliers/Contractors, 2015/16

| Licensee | % Money Spent in NCI* | | | | 2015/16 |
|---------------|-----------------------|---------|---------|---------|---------|
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | |
| Canfor | 97.0% | 95.7% | 96.1% | 98.8 | 97.3 |

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

Indicator 5.2.1(b) Level of investment in initiatives that contribute to community sustainability

| Indicator Statement | Target and Variance |
|--|--------------------------------------|
| Number of donations to the local community | Target: >=6 donations Variance: 0 |
| Was the target met? Yes | |

This indicator documents how Canfor provides economic and social benefits to the public over and above wages, taxes and stumpage fees through donations and involvement in local community organizations. Types of support opportunities within the local community vary from providing personnel, equipment and/or facilities, to providing cash and product donations. This is an important component of a community's economic and social stability, but it is also difficult to quantify as support opportunities often go unrecorded.

During the reporting period, Canfor donated to many recipients within the local community, including but not limited to the following:

- Spirit of the North Healthcare Foundation

- University of Northern British Columbia
- United Way of Northern BC
- School District #57 scholarships
- The Movember Foundation
- Heart & Stroke Foundation
- St. Vincent de Paul Society
- The Salvation Army (PG Community)
- Operation Red Nose
- Canadian Cancer Society – Kordyban Lodge
- Ducks Unlimited
- Breakfast Club of Canada
- Earth Rangers – sponsored presentations to four PG elementary schools
- BC Forest Safety Council (Northern BC Safety Conference)
- PG Downtown Business Improvement Association
- Prince George Chamber of Commerce
- Tabor Mountain Recreation Society
- Yellowhead Rotary Club – Adventures in Forestry program (staff time)
- Canadian Institute of Forestry's "Walk in the Woods" elementary school program (staff time and handouts for kids)

Indicator 5.2.2 Level of investment in training and skills development

| Indicator Statement | Target and Variance |
|---|--|
| Training in environmental & safety procedures in compliance with company training plans | <u>Target:</u> 100% of company employees and contractors will have both environmental & safety training. <u>Variance:</u> -5% |
| Was the target met? Yes | |

Sustainable forest management provides training and awareness opportunities for forest workers as organizations seek continual improvement in their practices. Investments in training and skill development generally pay dividends to forest organizations by way of a safer and more environmentally conscious work environment. Assessing whether forest contractors have received both safety and environmental training is a direct way of measuring this investment. Additionally, training plans should be in place for employees of the forest organizations who work in the forest. Measuring whether the training occurred in accordance with these plans will confirm an organization's commitment to training and skills development.

Table 23: Training in Environmental & Safety Procedures in Compliance with Company Training Plans, 2015/16

| | # of individuals required to receive environmental & safety training | # of individuals who received environmental & safety training | % of individuals trained according to plan |
|---------------|--|---|--|
| Canfor | 84 | 84 | *99% |
| Contractors | 38 | 38 | 100% |
| Total: | 122 | 122 | 100% |

*This may not be 100% as some individuals missed training requirements for one or more required courses, but not all courses.

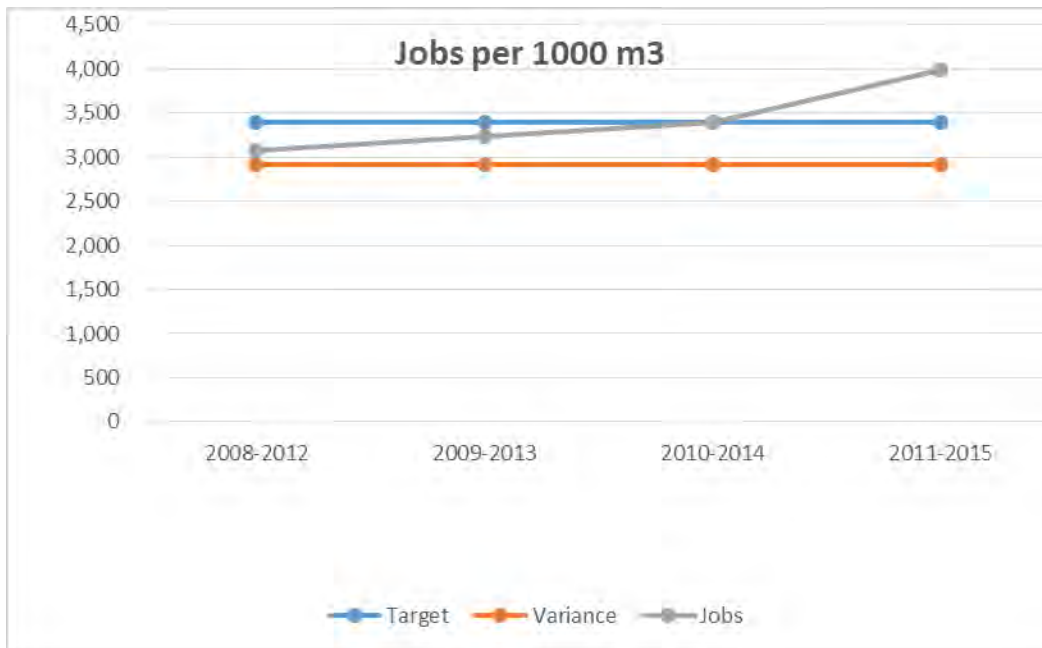
Indicator 5.2.3 Level of direct and indirect employment

| Indicator Statement | Target and Variance |
|---|---|
| Level of direct and indirect employment | <p><u>Target:</u> Cut control volume harvested, multiplied by most current local direct and indirect employment multiplier, as a five-year rolling average (3388)</p> <p><u>Variance:</u> >=65% of the target (of 3388 jobs)</p> |
| <p>Was the target met? Yes</p> | |

Forests represent not only a return on investment (measured, for example, in dollar value, person-days, donations, etc.) for the organization but also a source of income and non-financial benefits for DFA-related workers, suppliers, local communities and governments.

Organizations contribute to direct and indirect employment within the region and to sustainable harvesting by adhering to their apportioned harvest volume within each respective TSA. Cut control regulations dictate the short-term harvest flexibility.

As per the following graph, the level of direct and indirect employment for the current five-year period has exceeded the target whereas in previous periods was within the acceptable variance since 2008.



Indicator 5.2.4 Level of Aboriginal participation in the forest economy

| Indicator Statement | Target and Variance |
|---|---|
| Number of opportunities for Aboriginals to participate in the forest economy. | Target: >= number of realized opportunities from baseline assessment (3-year rolling average) Variance: -10% of baseline |
| Was the target met? Yes | |

This indicator is focused on Aboriginal participation in the forest economy, evaluating licensees' efforts to build capacity within Aboriginal communities on matters related to the forest industry. For the purposes of this indicator, a "realized" opportunity means timber sales licenses, direct employment, signed partnerships, joint ventures, co-operative agreements, memorandums of understanding or business contracts over a minimum value.

The following Aboriginal communities have interests in the DFA: Lheidli T'enneh First Nation, McLeod Lake Indian Band, West Moberly First Nation, Halfway River First Nation, Nak'azdli First Nation, Nazko First Nation, Lhtako Dene Nation (formerly Red Bluff Band), Lhoosk'uz Dene Government Administration, Saik'uz First Nation, and the Prince George Métis Community Association.

The baseline assessment is four (4) realized opportunities (2011 data). The target is intended to recognize and respect that there may be occasions when Aboriginals, after being offered an opportunity, elect not to participate for a variety of reasons.

Table 24: Number of Opportunities for Aboriginals to Participate in the Forest Economy, 2015/16

| Type of Opportunity | Number of Realized Opportunities in 2015/16 | Number of Aboriginal Communities Involved in Realized Opportunities in 2015/16 | 3-year Rolling Average (March 2014 to March 2016) |
|---------------------|---|--|---|
| Manual Brushing | 1 | | |
| Harvesting Contract | 1 | | |
| Road maintenance | 1 | | |
| Volume Contract | 2 | | |
| Total | 5 | | |

Indicator 6.1.1 Evidence of a good understanding of the nature of Aboriginal title and rights

| Indicator Statement | Target and Variance |
|--|--------------------------------|
| Employees will receive Aboriginal awareness training | Target: 100% Variance: -10% |
| Was the target met? Yes | |

The first step toward respecting Aboriginal title and rights, and treaty rights is compliance with the law. Section 7.3.3 of the CSA Z809 Standard reinforces legal requirements for many reasons, including the reality that demonstrating respect for Aboriginal title and rights, and treaty rights, can be challenging in Canada's fluid legislative landscape. Therefore, it is important to identify these legal requirements as a starting point. It is important for companies to have an understanding of applicable Aboriginal title and rights, and treaty rights, as well as the Aboriginal interests that relate to the DFA.

Table 25. Number of Employees Receiving Aboriginal Awareness Training, 2015/16

| # of employees requiring training | # of employees receiving training | Percentage: |
|-----------------------------------|-----------------------------------|-------------|
| 3 | 3 | 100% |

Although Aboriginal awareness training is mandatory only for those in Planning and Silviculture, 8 other woodlands staff have also completed the training in the 2015/16 reporting period.

Indicator 6.1.2 Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans

6.4.3 Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities

| Indicator Statement | Target and Variance |
|--|---|
| Evidence of best efforts to share interests and plans with Aboriginal communities. | <u>Target:</u> >=3 approaches/Aboriginal community within the DFA, for 100% of management plans, as required <u>Variance:</u> None |
| Was the target met? Yes | |

Open, respectful communication with local Aboriginal communities includes not only the organization understanding the Aboriginal rights and interests within their asserted traditional territory but for Aboriginals to understand the forest management plans of organizations. With this open dialogue, the two parties can then best work towards plans and operations that are mutually acceptable to both parties. The re-wording of the core indicator statement to include the phrase “share interests and plans” is intended to demonstrate two-way communication, rather than one-way. The reference to “Aboriginal communities” corresponds to licensees interacting with the Natural Resources Office and Chief and Council (or equivalent positions).

For the purpose of this indicator, “management plans” include Forest Stewardship Plans (major amendments), TFL Management Plans, Pest Management Plans, block information sharing, and SFM Plans. “Clear understanding” is very difficult to measure, but will be considered as part of the continuum of relationship building between licensees and Aboriginal communities, and will be a qualitative measure based on the summary of interests and concerns. “Best Efforts” will consist of an initial attempt to contact by mail, a number of follow-up phone calls and an interest in meeting in person (if required).

Table 26: Evidence of Best Efforts to Share Interests and Plans with Aboriginal Communities, 2015/16

| Aboriginal Community | 2015/16 Status | |
|---|---------------------|---|
| | # of Plans Shared | Forms of Communication Initiated |
| Blueberry River First Nation | 3 plans 11 contacts | Mailed letters and packages, emails |
| Carrier Chilcotin Tribal Council | 1 plan 2 contacts | Phone and mailed letters |
| Carrier Sekani Tribal Council | 1 plan, 1 contact | Mailed letter |
| Lhoosk'uz Dene Nation | 3 plans 5 contacts | Mailed letter and package, email and phone |
| Lheidli T'enneh First Nation | 6 plans 40 contacts | Mailed letters & packages, emails, phone, face to face meetings |
| McLeod Lake (Tsekani) First Nation | 3 plans 15 contacts | Mailed letters & packages, emails, phone, face-to-face meetings (including flights) |
| Nak'azdli Band | 5 plans 30 contacts | Mailed letters & packages, emails, phone, face-to-face meetings |
| Halfway River First Nation | 3 plans 14 contacts | Letter, email |
| Nazko First Nation | 3 plans 5 contacts | Letter, email |
| West Moberly First Nations | 6 plans, 9 contacts | Mailed letters & packages, emails, phone, face-to-face meetings |
| Saik'uz First Nation | 3 plans, 7 contacts | Letter, phone, email |
| Prince George Métis Community Association | 1 | Phone, email, face-to-face meeting |

Indicator 6.1.3 Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur

| Indicator Statement | Target and Variance |
|--|---|
| Percent of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses, communicated through information-sharing and cultural heritage evaluations. | Target: 100% compliance with operational plans Variance: -0% |
| Was the target met? Yes | |

Meaningful relationships and open communication with local Aboriginal communities help ensure that areas of cultural importance are managed in a way that retains their traditions and values. This indicator recognizes the importance of managing and protecting culturally important practices and activities during forestry operations. Aboriginals, with the benefit of local and traditional knowledge, may provide valuable information concerning the specific location and use of these sites as well as the specific forest characteristics requiring protection or management. The outcome of these discussions, and the means to manage/protect values and uses, are included in operational plans. The intent of the indicator statements are to manage and/or protect those truly important sites; thus, there is a degree of reasonableness in identifying the sites. The targets verify that consideration was given in plans, then follows through with assessing plan execution.

Despite numerous face-to-face meetings and exchanges of information relating to proposed block and road developments, there are few communications from Aboriginal communities that involve specific management or protection. However, one First Nations referrals officer has consistently communicated the value of debris piles for small mammal habitat use, in response to information shared by Canfor. The practice of leaving some debris piles unburned was confirmed with Canfor's Silviculture foresters, and communicated in response to the written comment.

Table 26: Percent of Forest Operations in Conformance with Plans Developed to Address Aboriginal Forest Values, Knowledge and Uses, 2015/16

| | Number of Instances Where Discussions Led to ID of Aboriginal Forest Values, Knowledge and Use that Required Specific Management or Protection | Number of Times Where Operational Plans Specified How Communicated Values, Knowledge and Use was Considered | % of Forest Operations in Conformance with Operational/Site Plans Developed to Address Aboriginal Forest Values, Knowledge and Use | Number of Requests Received from First Nations to Protect or Consider Site-Specific Management | Efforts to Accommodate |
|--------|--|---|--|--|------------------------|
| Canfor | 1 | 1 | 1 | 0 | 0 |

Indicator 6.3.1 Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy

| Indicator Statement | Target and Variance |
|---|---|
| Primary and by-products that are bought, sold, or traded with other forest-dependent businesses in the local area. | <u>Target:</u> Increasing number of purchase/sale/trade relationships <u>Variance:</u> + |
| Was the target met? No | |
| Root Cause: Canfor's ability to continually increase the number of purchase/sale/trade relationships is highly dependent on opportunities and competition for those opportunities within the defined area. As with the 2013/14 reporting period, the purchase wood market was extremely competitive in 2015/16 and it didn't make business sense for Canfor to outbid other parties. | |
| Action Plan: Monitor the trend in the number of purchase, sale and trade relationships in this increasingly competitive region of the province. | |

An economically and socially diverse community is often more sustainable in the long-term with its ability to weather market downturns of a particular sector. Support of efforts to increase diversity, the establishment of other enterprises and co-operation with other forest-dependent businesses and forest users is desirable.

Support for local communities through business relationships (defined for this indicator as purchases, sales, or trading of primary forest products and forest by-products) provides employment diversification and increased local revenue.

For the purposes of this target, local area is defined as including communities from 100 Mile House to Mackenzie (south to north) and from Smithers to McBride (west to east).

Table 27: Purchase, Sale and Trade Relationships with Other Forest-Dependent Businesses in the DFA

| Product | Number of opportunities by reporting period | | | | | Organizations (2015/16) |
|----------------------|---|-----------|-----------|-----------|---------|--|
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | |
| Log Sales | 6 | 5 | 3 | 1 | | Edgewater Holdings |
| Log Purchase | 5 | 6 | 5 | 6 | | Edgewater Holdings Ltd., Dollar Saver Lumber Ltd., McLeod Lake Indian Band, Williston Lake Enterprises Ltd. |
| Pulp Log Purchase | 3 | 12 | 15 | 8 | | Edgewater Holdings Ltd., Dollar Saver Lumber Ltd., Carrier Lumber Ltd., K&D Logging Ltd., Lakeland Mills Ltd., Winton Global, 391605 BC Ltd., Dunkley Lumber |
| Residual Fibre (Hog) | 2 | 1 | 1 | 0 | | n/a |
| Chips | 1 | 1 | 1 | 1 | | Canfor Pulp |
| Total | 17 | 25 | 25 | 16 | | |

Indicator 6.3.2 Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures and outcomes in all DFA-related workplaces and affected communities

6.3.3 Evidence that a worker safety program has been implemented and is periodically reviewed and improved

| Indicator Statement | Target and Variance |
|--|--|
| Implementation and maintenance of a certified safety program | <u>Target:</u> 100% <u>Variance:</u> 0% |
| Was the target met? Yes | |

Canfor's first measure of success is the health and safety of its staff. This philosophy is embraced and promoted from the mill floor to the executive offices. This commitment is reflected in the work practices and safety programs employed at all worksites.

All Canfor's forest operations are third party-certified to a safety program that meets or exceeds provincial safety programs (the BC Forestry Safety Council's SAFE Certification program). The company has been SAFE certified since 2009, and passed an external SAFE Companies audit during the reporting period.

Indicator 6.4.1 Level of participant satisfaction with the public participation process

| Indicator Statement | Target and Variance |
|--|---|
| PAG established and maintained, and satisfaction survey implemented according to the Terms of Reference. | <u>Target:</u> PAG meeting satisfaction score of ≥ 4 <u>Variance:</u> 0 |
| Was the target met? Yes | |

The SFM Plan is an evolving document that will be reviewed for effectiveness and revised as needed with the assistance of the Public Advisory Group (PAG) to address changes in forest condition and local community values. Ensuring the continuing interest and participation of the PAG is an integral part of a dynamic and responsive SFM Plan. The ability of people to share information, discuss and solve problems, and set and meet objectives is key to achieving and maintaining meaningful public participation.

Table 28: Level of Participant Satisfaction with the Public Participation Process

| | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| PG | 4.4 | 4.1 | 4.2 | 4.5 | 4.0 | 4.8 | 4.6 | 4.9 |
| TFL30 ¹ | 4.3 | 4.6 | 4.3 | | | | | |

¹ as of October 10, 2010 the TFL30 and PG PAGs merged into one PAG

Indicator 6.4.2 Evidence of efforts to promote capacity development and meaningful participation in general

| Indicator Statement | Target and Variance |
|---|---|
| Number of educational opportunities for information/training that are delivered to the PAG. | <u>Target:</u> >= 2 (annual) <u>Variance:</u> None |
| Was the target met? Yes | |

This indicator recognizes the importance of providing information and/or training opportunities to facilitate a more knowledgeable and effective Public Advisory Group (PAG). Members of the public provide local knowledge that contributes to the achievement of socially and environmentally responsible forest management. At times, public members may feel limited in their ability to contribute to discussions because they may lack the required technical forestry knowledge. Broadening this knowledge base enables better dialogue and helps contribute to balanced decisions and an SFM Plan acceptable to the majority of the affected public.

Table 29: Number of Educational Opportunities Delivered to the PAG

| Reporting Period | Educational Opportunities Delivered to the PAG |
|------------------|---|
| 2009/10 | <ol style="list-style-type: none"> 1. Dave Bebb, KPMG auditor - Q&A session with the PAG 2. Dr. Howie Harshaw, UBC – Public Opinion Survey results |
| 2010/11 | <ol style="list-style-type: none"> 1. Jeff Burrows, MNRO – PG TSA TSR 4 2. Dr. Greg Halseth, Canada Research Chair in Rural and Small Town Studies, UNBC – community development |
| 2011/12 | <ol style="list-style-type: none"> 1. Jim McCormack, Canfor – Canfor’s Biodiversity Strategy 2. Neil Spendiff, Canfor - Brushing Treatments and use of Herbicides 3. Vince Day, Canfor - Seedling genetic diversity |
| 2012/13 | <ol style="list-style-type: none"> 1. Dr. Len Ritter – Professor Emeritus, School of Environmental Sciences, University of Guelph (toxicologist) – Glyphosate use, toxicity, and environmental interactions 2. PAG Field Tour – England Creek and TFL30 – riparian retention, silvicultural challenges, rare lichen species, caribou corridor, reserve maintained around plane wreck |
| 2013/14 | <ol style="list-style-type: none"> 1. Dr. John Rex, Hydrologist (MFLNRO) – Small Streams Research Project 2. Gretchen Prystawik, Tenures Forester, MFLNRO – Presentation on Allowable Annual Cut Determination for TFL30 |
| 2014/15 | <ol style="list-style-type: none"> 1. PAG Field Tour – TFL30 – Silviculture treatments, including herbicide applications; proposed Draft Old Growth Management Areas (OGMAs); old forest attributes associated with Balsam Intermediate Utilization (IU) stands; Age Class 9 cottonwood stand and value as fisher habitat. 2. Jacek Bankowski (MFLNRO) – Forest and Range Evaluation Program (FREP) Update |
| 2015/16 | <ol style="list-style-type: none"> 1. PAG Field Tour – Including Chris Schacke, RPF, Canfor - Forests for Tomorrow Rehabilitation and Fertilization; Robert Hodgkinson, RPF, Regional Forest Entomologist – Spruce Beetle Life Cycle and the Bowron Outbreak; Dave King – Ancient Forest trails and proposed Driscoll Ridge protected area; John Pousette, RPF – PG TSA Timber Supply Review. 2. John Spagrud, RPF – Visual Resource Management |

Indicator 6.5.1 Number of people reached through educational outreach

| Indicator Statement | Target and Variance |
|--|--|
| The number of people who attend the educational opportunities provided | <u>Target:</u> >=200 people and >=4 events <u>Variance:</u> -10 |
| Was the target met? Yes | |

Canfor is committed to working with directly affected stakeholders and members of the public on forest management issues and has a well-established history of participation in community meetings, including local planning processes. The sharing of knowledge with affected stakeholders contributes to informed, balanced

decisions and plans acceptable to the majority of public. When informed and engaged, members of the public can provide local knowledge and support that contributes to socially and environmentally responsible forest management within the DFA.

Table 30: Number of People Reached Through Educational Outreach, 2015/16

| Types of Opportunities | # of opportunities | # of attendees |
|--|--------------------|----------------|
| PAG meetings and field tours | 2 | 37 |
| COFI Natural Resources Management Camps (one for high school students & one for elementary school students) | 2 | 65 |
| Yellowhead Rotary Club's "Adventures in Forestry" program for high school students | 1 | 30 |
| Canadian Institute of Forestry's "Walk in the Woods" for elementary school students (part of National Forestry Week) | 2 | 200 |
| UNBC Career Fair | 1 | 100 |
| Canada Day Seedling Giveaway, Fort George Park | 1 | 30 |
| Tour group - Swedish woodlot owners (forest management presentation and field tour) | 1 | 40 |
| Total opportunities | 10 | 499 |

Indicator 6.5.2 Availability of summary information on issues of concern to the public

| Indicator Statement | Target and Variance |
|---|---|
| SFM Annual report made available to the public. | <u>Target:</u> SFM monitoring report available to public annually via the web. <u>Variance:</u> None |
| Was the target met? Yes | |

Annual reporting of the Plan's performance measures to the advisory group and to the broader public provides an open and transparent means of demonstrating how issues of concern are being managed. It provides the public with an opportunity to respond to results and associated actions outlined in the annual SFM Monitoring report and make recommendations for improvement.

As per the SFMP, the annual report is to be made publicly available by December 31st each year. The draft 2015/16 annual report was presented to the PAG on December 13th 2016 and will be posted to Canfor's public website before December 31st 2016.