2009 ANNUAL PERFORMANCE MONITORING REPORT

Grande Prairie

Reporting Period:
January 1st, 2009 - December 31st, 2009

February 28, 2010

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Executive Summary

The *2009 Annual Performance Monitoring Report* has been prepared in accordance with the Canadian Standards Association CAN/CSA-Z809-02 standard (CSA, 2002). The report summarizes the progress and performance that Canfor Grande Prairie Division has achieved in meeting and maintaining the Sustainable Forest Management (SFM) requirements.

The *2005 Sustainable Forest Management Plan* (SFMP) for the Canfor Grande Prairie Defined Forest Area is a compilation of Canadian Standards Association (CSA) standard requirements, corporate commitments and local level values, objectives, indicators and targets. Canfor Grande Prairie's Forest Management Advisory Committee (FMAC) assisted Canfor in identifying the local level values, objectives, indicators and targets that are contained within the SFMP and in this report.

As a means of strengthening Canfor's commitment to SFM, the 2001 SFMP was incorporated into the Detailed Forest Management Plan (DFMP) that is required under the terms of Forest Management Agreement 9900037 (Province of Alberta Order in Council 198/99) (Canfor, 1999). The DFMP was reviewed and endorsed by the FMAC, then submitted to, and approved by, Alberta Sustainable Resource Development (ASRD) on November 3rd, 2003. In October 2006, the 2005 SFMP was incorporated into the 2003 DFMP and submitted to ASRD with a request that the government approve the replacement of the 2001 SFMP with the 2005 SFMP. Upon approval of the Healthy Pine Strategy DFMP amendment in January, 2010, the government has now provided defacto approval of the 2005 SFMP.

Economic factors continued to adversely affect the Canadian forest products industry in 2009. Although lumber and pulp markets showed slight improvements during the year, those gains were offset by the strong Canadian dollar and the tax on lumber exports to the United States imposed under the Canada/US Softwood Lumber Agreement. As had been done in 2008, Canfor Grande Prairie responded to the ongoing difficult times by voluntarily curtailing sawmill and planer operations for periods of the year and by imposing stringent cost-cutting measures in both the woodlands and manufacturing operations.

Mountain pine beetle (MPB) continued to be a great concern for Canfor in 2009. During late summer, 2006, an infestation of mountain pine beetle (*Dendroctonus ponderosae*) occurred within a significant portion of the Forest Management Agreement (FMA) area. The 2006 infestation attracted the immediate attention of the Alberta government, the forest industry and the general public. ASRD responded to the threat by developing a *Mountain Pine Beetle Action Plan for Alberta* (ASRD, 2007a). The plan includes a number of mitigation strategies, including a strategy to decrease the risk of MPB spread by reducing the volume of lodgepole pine on the landscape, particularly those stands that are most susceptible to mountain pine beetle infestation. In response to the ASRD's action plan, Canfor commenced development of a Healthy Pine Strategy amendment to its approved 2003 Detailed Forest Management Plan (Canfor, 2003). The Alberta government's Interpretive Bulletin: *Planning Mountain Pine Beetle Response Operations* ver. 2.6 (ASRD, 2006a) provided the direction for development of the amendment. The Healthy Pine Strategy amendment was submitted to ASRD for approval on April 30, 2009. Approval was received January 22, 2010. Approval of the plan included an uplift in the Coniferous Annual Allowable Cut (AAC) from 640,000 m^3/year to 715,000 m^3/year, effective May 1, 2009. The plan will enable Canfor to work more effectively with the province of Alberta to mitigate MPB impacts.

Public concern continued in 2009 regarding the management of caribou and caribou habitat within the Little Smoky and A La Peche caribou herd ranges, approximately fifteen percent of which extend into the Canfor FMA area. Canfor has responded to this concern by including a 15 year harvest deferral in the area of highest caribou habitat intactness within the Little Smoky Range. An additional two year deferral was agreed to with ASRD in a portion of the Little Smoky Range, south of Deep Valley Creek.

Canfor continues to be actively engaged in the caribou recovery plan process through its membership in the Foothills Landscape Management Forum (FLMF).

Canfor Grande Prairie maintained overall conformance to the SFM requirements of the CAN/CSA Z809-02 standard, the ISO 14001:2004 standard and Canfor corporate environmental commitments in 2009 as verified by internal and third party audits.

Progress toward achievement of individual SFM targets is described fully within this *2009 Annual Performance Monitoring Report*. Following is a summary of performance:

Classification	2006	2007	2008	2009
Number of targets"Meets"	36	38	37	50
Number of targets "Does Not Meet"	12	12	11	6
Number of targets "Not a scheduled reporting time"	9	10	7	1
Number of targets "Assessment Postponed"	0	0	5	4
Total number of CSA Z809-02 targets	**60**	**60**	**60**	**61**

2009 results indicate Canfor has achieved significant improvement with respect to the number of targets met and not met. 90% of the targets for which results have been reported in 2009 were met compared to 77% in 2008. For targets not met, explanations have been provided regarding the contributing factors, and corrective actions to address identified deficiencies or weaknesses have been included in the text. A new category was added in the 2008 report called 'assessment postponed' which is intended to represent targets that will undergo significant change because of external events or activities beyond Canfor's control. For example, changes to Canfor's spatial harvest sequence that have occurred due to implementation of the Healthy Pine Strategy will necessitate the revision of several targets and therefore reporting on progress toward their achievement is no longer indicative of the division's management performance.

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1. Introduction & Overview

1.1. Certification

Certification of sustainable forestry practices is an essential element for Canadian Forest Products Ltd. (Canfor) to meet public expectations and maintain product market share. Canfor Grande Prairie Division has sought and achieved certification under a variety of respected standards including International Organization for Standardization (ISO) 14001, CAN/CSA Z809-02 and Program for the Endorsement of Forest Certification (PEFC) Chain of Custody.

As a preparatory step, Canfor corporately developed an Environmental Management System (EMS) to the ISO 14001 standard. The company's EMS provided the platform on which the Sustainable Forest Management System (SFMS) was built, and it was subsequently certified under the CSA SFM standard. Canfor eventually amalgamated the EMS and SFMS in the Canfor Forest Management System, under which it has operated since 2006.

1.2. The CSA Sustainable Forest Management System Standard

In 1996, six criteria were developed by the Canadian Council of Forest Ministers (CCFM) to address sustainable forest management. The criteria address the key aspects of forest management. The criteria are identified below:

Criterion 1: Conservation of Biological Diversity;
Criterion 2: Maintenance and Enhancement of Forest Ecosystem Condition and Productivity;
Criterion 3: Conservation of Soil and Water Resources;
Criterion 4: Forest Ecosystem Contributions to Global Ecological Cycles;
Criterion 5: Multiple Benefits to Society; and
Criterion 6: Accepting Society's Responsibility for Sustainable Development.

The CSA process led to the development of a set of critical elements for each of the criteria. Under the CSA standard, adoption of the CCFM criteria and elements as a framework for value identification provides vital links between local sustainable forest management and national and provincial-scale forest policy, as well as a strong measure of consistency in identification of local forest values across Canada. This standard, which utilizes a continual improvement approach, requires public participation, practical demonstration of sustainable forest management practices, and management commitment. Through a process of public participation, the CSA performance framework attains local relevance to the critical elements in the form of locally determined values[1], objectives[2], indicators[3] and targets[4]. Canfor's public advisory group, the FMAC, assisted Canfor in the development of its SFMP by identifying quantifiable local level values, objectives, indicators and targets applicable to sustainable forest management.

1.3. Sustainable Forest Management Policy

Senior Canfor management have endorsed the corporate *Environment Policy* and *Canfor's Forestry Principles* that apply to all of the Canfor forestry operations, including Grande Prairie.

[1] Values: an FMA area characteristic, component or quality considered by an interested party to be important in relation to a CSA SFM element or other locally identified element;
[2] Objectives: a broad statement describing a desired future state or condition for a value;
[3] Indicators: a variable that measures or describes the state or condition of a value; and
[4] Targets: a specified statement describing a desired future state or condition of an indicator. Targets should be clearly defined, time limited, and quantified if possible.

1.4. The Defined Forest Area

The CSA standard states that organizations "*shall designate a clearly defined forest area to which the standard applies.*" The Defined Forest Area (DFA) for Canfor Grande Prairie is the FMA area indicated in Figure 1 below. The operational units have been identified as well for reference when mentioned throughout the report.

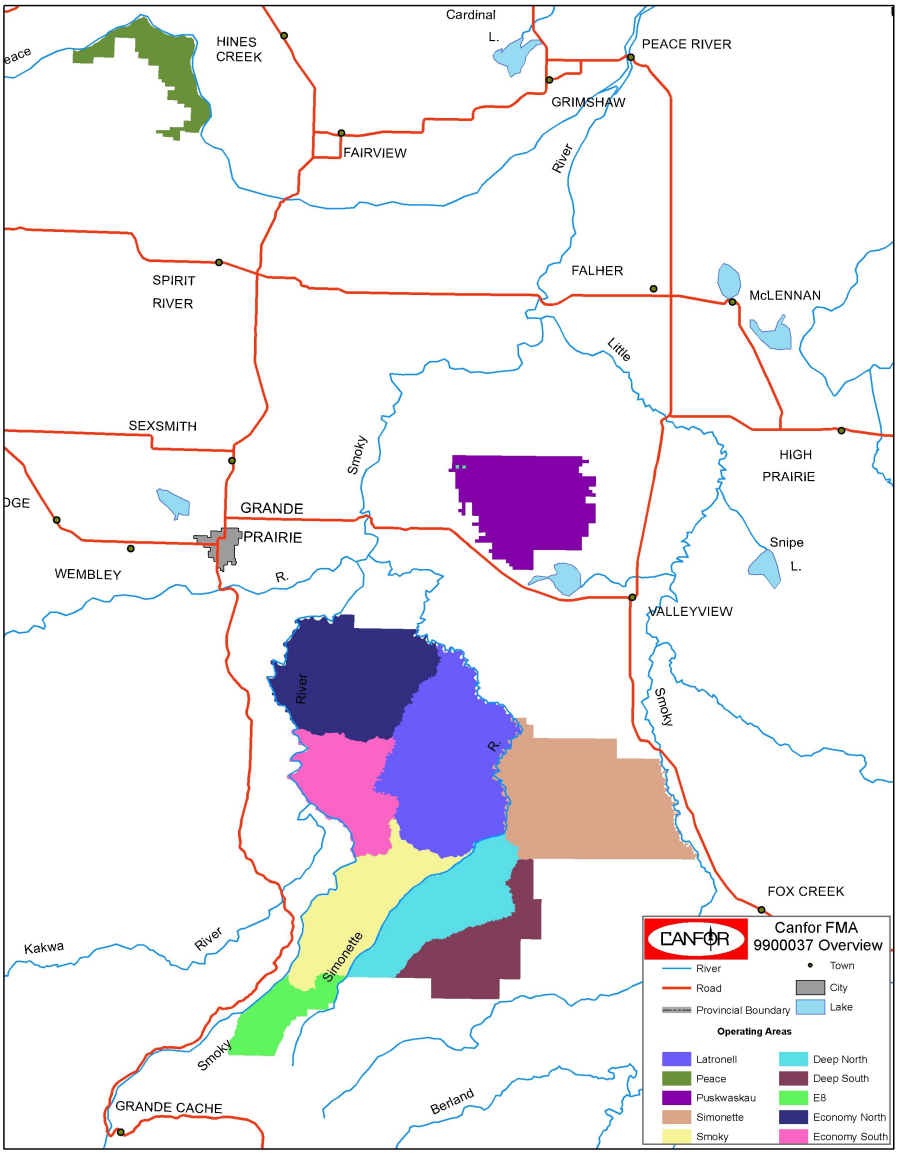

Figure 1. Defined Forest Area (DFA)

1.5. Landbase & Resource Information

Total Landbase: 649,160 hectares
Productive Landbase (Coniferous and Deciduous): 474,193 hectares
Approved (2003) Coniferous AAC: 640,000 m^3/yr*
Approved (2003) Deciduous AAC: 453,712 m^3/yr

***Note**: *ASRD approved a new coniferous AAC for the FMA on Jan 22, 2010. Effective May 1, 2009 the coniferous AAC is 715,000 m^3/yr. The deciduous AAC remains unchanged.*

1.6. Annual Report

Canfor prepares an Annual Performance Monitoring Report to illustrate its progress in meeting commitments identified in the SFMP in accordance with the CAN/CSA Z809-02 standard (CSA, 2002). This report contains information regarding the achievement and maintenance of SFM requirements in general (Section 2) and also indicates the status of each of the 61 targets (Sections 3-9). An additional target was added in 2009 at the request of the Forest Management Advisory Committee (FMAC). This additional target ((2.1) 1a.2.1) is scheduled to be reported on in the 2010 Annual Performance Monitoring Report.

Five classifications are used for reporting performance toward achievement of each target:

1. Completed;
2. Meets;
3. Does not meet;
4. Not a scheduled reporting time; or
5. Assessment postponed.

2. Progress in Meeting and Maintaining SFM Requirements

In 2005, the Canfor FMAC developed quantifiable local level values, objectives, indicators and targets of sustainable forest management, as defined in the Canadian Standards Association CAN/CSA Z809-02 standard. These were then used to develop the 2005 SFMP. The SFMP was audited by an independent third party (KPMG Performance Registrar) and approved on November 7, 2005.

Since approval of the SFMP, Canfor Grande Prairie has maintained overall conformance to the SFM requirements of the CAN/CSA Z809-02 standard and Canfor corporate commitments. Results of internal and external third party audits are included in Section 9.

Progress toward achievement of individual targets are included in Sections 3 – 8. Target results are reported for the 2009 calendar year unless it is stated that they are being reported for the 2008 timber year. (May 1 2008 to April 30 2009). Results of target achievement are summarized in Table 1 below.

Table 1. 2009 Target Summary

Target	Meets	Does Not Meet	Not a Scheduled Reporting Time	Assessment Postponed
(1.1) 1a.1.1 100% of the seral stages will meet the 2009 projections.	X			
(1.2) 1a.1.1 To maintain the habitat suitability rating for each ecosection group for the period 1997 - 2017 at the 1997 level.				X
(1.2) 1a.2 .1 Annually, zero bull trout watersheds with ≥ 35% equivalent clearcut area (ECA) above the H60 elevation.	X			
(1.2) 1a.3.1 Woodland caribou: no more than 20% of the area in pioneer or young seral condition and at least 20% of the area in old seral condition at key points in time.	X (not counted)			
Trumpeter swan: to buffer 100% of identified trumpeter swan lakes with a 200 m no harvest buffer (reported annually).	X			
(1.2) 1a.4.1 100% of the Canfor forestry staff receives training to identify and report rare plants (reported annually).	X			
(1.2) 1a.5.1 Participate in one or more biodiversity monitoring program(s) annually.	X			
(1.2) 1a.6.1 100% of the pre-harvest volume per hectare CWD will be retained on harvest areas annually.				X
(1.2) 1a.7.1 The actual area in watercourse buffers is a minimum of 100% of the planned (DFMP) area annually.	X			
(1.2) 1a.8.1 A minimum of 10% of the area harvested across the FMA area will contain structure retention accumulated annually beginning in 2008.	X			
(1.3) 1a.1.1 MPS (ha) for 2009 will not fall below the MPS forecasts.	X			
(1.3) 1a.2.1 The MNND for 2009 will not exceed the MNND forecasts.	X			
(1.3) 1a.3.1 The AWMSI for 2009 will not fall below the AWMSI forecasts.	X			
(1.3) 1a.4.1 100% of the total area by patch size class will meet the 2009 projections.	X			
(1.3) 1a.5.1 A maximum of 70% of area is planted with genetically improved stock accumulated annually.	X			

Target	Meets	Does Not Meet	Not a Scheduled Reporting Time	Assessment Postponed
(1.3) 1a.6.1 100% of utilized grass seed mix will not contain restricted or noxious weeds as identified in the Weed Control Act annually.	X			
(1.3) 1b.1.1 100% of seeds collected and seedlings planted annually will be in accordance with the "Standards for Tree Improvement in Alberta"	X			
(1.4) 1a.1.1 100% of significant wildlife mineral licks will be conserved annually.	X			
(1.4) 1a.2.1 100% of identified protected areas and special biologically significant sites will be conserved annually.	X			
(2.1).1a.1.1 100% of the identified prescribed insect and disease treatments will be scheduled for treatment annually.	X			
(2.1) 1a.2.1: 90% of the annual harvest area is within MPB pine susceptible stands beginning in the 2009 timber year.			X	
(2.1).2a.1.1 100% of harvest areas meet the required regeneration standards as confirmed by completion of establishment surveys, measured on a 5-yr. rolling average.	X			
(2.1).2a.2.1 100% of harvest areas meet the required regeneration standards as confirmed by completion of performance surveys, measured on a 5 year rolling average.				X
(2.2).1a.1.1 100% of the productive areas, adjacent to proposed harvest area boundaries, impacted by windfall receive a silviculture prescription annually.	X			
(2.2).1a.2.1 100% of temporary "in block" roads used for extraction of timber will be reforested within 18 months after the end of the timber year[9] of harvest.	X			
(2.2).1a.3.1 100% of tasks outlined in the approved Growth and Yield Monitoring Plan are completed on schedule.	X			
(3.1) 1a.1.1 Average accumulated post harvest site index will not be less than average pre harvest site index (with reporting commencing in 2008).	X (completed)			
(3.1) 2a.1 Zero major slumping events annually caused by road construction.	X			
(3.1) 2a.2.1 Zero slumping events annually due to harvesting activities.	X			
(3.1) 2a.3.1 Zero significant erosion events related to silviculture, harvesting and road activities annually.	X			
(3.1) 2a.4.1 100% of the blocks that have temporary roads will be deactivated within 6 months after usage is complete.	X			
(3.1) 2b.1.1 100% of prescriptions created throughout the year conform to Section 9.0.3 of the Operating Ground Rules.	X			
(3.1) 2b.2.1 100% of harvest areas do not exceed the soil disturbance prescriptions annually.		X		
(3.2) 1a.1.1 Less then 10% of surveyed stream crossings on forestry roads will have a "High" and "Very High" WQCR annually.		X		
(3.2) 1a.2.1 100% of crossings receive remedial action as identified in the Road Maintenance Plan annually.		X		
(3.2) 1a.3.1 Zero non-compliance incidents related to riparian zone standards annually.		X		

Target	Meets	Does Not Meet	Not a Scheduled Reporting Time	Assessment Postponed
(3.2) 2a.1.1 100% of sampled watersheds are in conformance with the annual average water yield increase limit of 15% as indicated in the Operating Ground Rules.	X			
(4.1) 1a.1.1 100% of harvest areas are reforested within 18 months after the end of the timber year in which it was harvested.	X			
(4.1) 1a.2.1 Reforest 100% of the productive areas >4 ha impacted by fire within 24 months.	X			
(4.2) 1a.1.1 100% of the harvested area sufficiently restocked by yield group accumulated annually beginning in 2000.		X		
(4.2) 1b.1.1 To leave less than 1% conifer and 1% deciduous harvested merchantable wood on site annually.				X
(4.2) 1b.2.1 100% of the dispositions where merchantable industrial salvage wood from permanent land withdrawals is utilized on an annual basis.	X			
(4.2) 2a.1.1 To have no more than 0.6 lineal km/km^2 in open (non-reclaimed) roads over a 5-year period, for each FMA parcel (Peace, Puskwaskau and Main).	X			
(4.2) 2b.1.1 100% of previously withdrawn areas that are suitable candidates for reforestation are restored to productive forestland within 24 months.	X			
(5.1) 1a.1.1 Actual extraction rates (m^3) are less than or equal to the long-term harvest level (m^3) at the end of the 1999-2008 period	X			
(5.1) 2a.1.1 Canfor will maintain a minimum of 5 recreation areas for use by the public annually.	X			
(5.1) 2a.2.1 100% of registered trappers directly impacted by harvesting, silviculture and reclamation operations are contacted as specified in the *Trapper Consultation and Notification Program* annually.	X			
(5.1) 2a.3.1 100% of outfitters potentially affected by operations within the FMA area will be supplied a 5 year General Development Plan map annually.	X			
(5.2) 1a.1.1 Over a rolling 5-year period, a minimum of 75% of dollars paid for contract services will be expended locally.	X			
(5.2) 1b.1.1 Maintain 100% of identified social and cultural benefits that occur on the FMA area annually.	X			
(5.3) 1a.1.1 Annual economic contributions to local communities will be a minimum of 80% of the 5 year rolling average.	X			
(5.3) 1a.2.1 0.5% of the coniferous AAC is made available for local use and for local residents as per Forest Management Agreement (FMA) 9900037 annually.	X			
(5.3) 1a.3.1 10,000 m^3 of the coniferous AAC is made available annually for Community Timber Use (CTU) program.	X			
(6.1) 1a.1.1 100% conformance to SFMP targets of Element (1.2) Species Diversity and Element (3.2) Water Quality and Quantity annually.		X		
(6.2) 1a.1.1 To annually provide a range of opportunities for early and effective consultation with Aboriginal peoples who have indicated interest in activities on the FMA area.	X			

Target	Meets	Does Not Meet	Not a Scheduled Reporting Time	Assessment Postponed
(6.2) 1b.1.1 100% conformance to the prescriptions for historical resources prepared by a certified archaeologist annually.	X			
(6.2) 1b.2.1 100% of known local historical resources are respected annually.	X			
(6.3) 1a.1.1 100%conformance to the FMAC's Terms of Reference (TOR) annually.	X			
(6.3) 1a.2.1 To provide a minimum of 4 types of opportunities for public participation annually.	X			
(6.3) 1a.3.1 To make initial contact to 100% of public inquires within one month of receipt.	X			
(6.4) 1a.1.1 To provide a minimum of 8 different opportunities to enhance knowledge annually.	X			
(6.4) 1a.2.1 To be involved in a minimum of 10 active research projects annually.	X			
	50	**6**	**1**	**4**

3. Criterion 1: Conservation of Biological Diversity

Conserve biological diversity by maintaining integrity, function and diversity of living organisms and the complexes of which they are part.

Critical Element (1.1): Ecosystem Diversity

Conserve ecosystems diversity at the landscape level by maintaining the variety of communities and ecosystems that naturally occur on the DFA.

Value (1.1) 1: All natural ecosystems are important on the landscape
Objective (1.1) 1a: All current ecosystems are represented on the landscape at natural levels
Indicator (1.1) 1a.1: Area (%) in each seral stage

Target (1.1) 1a.1.1:	**Acceptable variance:**
100% of the seral stages will meet the 2009 projections.	± 20% of the 2009 projections

Status: Meets

Maintenance of appropriate seral stage distribution is important for the conservation of biodiversity as it enables continuation of a full range of successional habitats for wildlife and ecosystem types over the long-term (CCFM, 1997). Seral stages are defined by the age of the forest stand, measured at breast height (1.3 meters above ground level) for various yield groups (Table 2).

Seral stage quantification is a surrogate measurement that reflects an important aspect of the biodiversity of the forest. In maintaining biodiversity and the recycling of life sustaining elements, it is important that the impacts of forest management on seral stage distribution be within the natural range of variability. The seral stage indicator offers a means to assess the results of forest management on the age distribution of the forest, species composition and relative amount of wildlife habitat on the landscape.

The seral stage results reflect implementation of the DFMP Healthy Pine Strategy (HPS) amendment. As indicated in tables 2-5, 19 of 20 (95 percent) seral stage groups are within the acceptable variance of 20% compared to the updated forecasts for the 2005 SFMP. The pioneer seral stage in the Peace Parcel exceeds the acceptable variance because of accelerated harvest activities in MPB infested stands.

Table 2. Seral Stage Distribution for the FMA Area

	Area (ha) in each Seral Stage					
	Pioneer(1)	**Young(2)**	**Mature(3)**	**OverMature(4)**	**Old(5)**	**Total Forested Landbase**
2009 Current[1]	28,935	90,670	248,171	170,832	49,325	587,932
2009a (SFMP Updated)[2]	30,389	93,105	246,750	170,613	47,076	587,932
Percent Variance	-4.8%	-2.6%	0.6%	0.1%	4.8%	
2009 Current[1] - Result from the Healthy Pine Strategy (HPS) DFMP amendment.						
2009a (SFMP Updated)[2] - This is the projected outcome from the 2005 SFMP document.						

Table 3. Seral Stage Distribution for the Peace Parcel

	Area (ha) in each Seral Stage					
	Pioneer(1)	Young(2)	Mature(3)	OverMature(4)	Old(5)	Total Forested Landbase
2009 Current	652	1,929	20,915	1,897	508	25,901
2009a (SFMP Updated)	0	1,927	21,542	1,920	511	25,901
Percent Variance	100.0%	0.1%	-2.9%	-1.2%	-0.6%	

Table 4. Seral Stage Distribution for the Puskwaskau Parcel

	Area (ha) in each Seral Stage					
	Pioneer(1)	Young(2)	Mature(3)	OverMature(4)	Old(5)	Total Forested Landbase
2009 Current	2,689	12,822	29,673	12,072	5,949	63,205
2009a (SFMP Updated)	2,957	13,185	29,605	11,509	5,949	63,205
Percent Variance	-9.1%	-2.7%	0.2%	4.9%	0.0%	

Table 5. Seral Stage Distribution for the Main Parcel

	Area (ha) in each Seral Stage					
	Pioneer(1)	Young(2)	Mature(3)	OverMature(4)	Old(5)	Total Forested Landbase
2009 Current	25,595	75,919	197,583	156,863	42,868	498,827
2009a (SFMP Updated)	27,432	77,993	195,603	157,184	40,615	498,827
Percent Variance	-6.7%	-2.7%	1.0%	-0.2%	5.5%	

Critical Element (1.2): Species Diversity

Conserve species diversity by ensuring that habitats for the native species found on the FMA are maintained through time.

Value (1.2) 1: Through time all current habitats are represented.
Objective (1.2) 1a: Current species diversity is maintained on the landscape.
Indicator (1.2) 1a.1: Habitat suitability rating.

Target (1.2) 1a.1.1:	**Acceptable variance:**
To maintain the habitat suitability rating for each ecosection group for the period 1997-2017 at the 1997 level.	To maintain, within ±20%, the proportions (area) of general habitat, critical habitat and landscape metrics that contribute to each wildlife guild habitat suitability rating.

Status: Assessment postponed

Since 2006-2008, Canfor has altered the planned spatial harvest sequence and has completed a Healthy Pine Strategy DFMP amendment. The process includes calculation of annual allowable cut levels and preparation of a corresponding spatial harvest sequence for both coniferous and deciduous species groups. This target will be reassessed during preparation of the next SFMP and DFMP.

Indicator (1.2) 1a.2: Number of bull trout watersheds with ≥ 35% Equivalent Clearcut Area (ECA) above the H60[5] elevation.

Target (1.2) 1a.2.1:	**Acceptable variance:**
Annually, zero bull trout watersheds with ≥ 35% equivalent clear-cut area (ECA) above the H60 elevation.	No more than 5 (3%) of the watersheds in the bull trout area to exceed 35% ECA above the H60 elevation

Status: Meets

Bull trout habitat is monitored by calculating the Equivalent Clearcut Area (ECA) in bull trout watersheds above the H60 elevation. Each year Canfor utilizes the DFMP/Annual Operating Plan (AOP) validation process to verify whether the ECA within selected watersheds exceeds the target. As indicated in Table 6, only three (3) watersheds currently exceed the 35% target.

Table 6. Watersheds above the ECA of 35%

Watershed ID	2007 ECA%	2008 ECA%	2009 ECA%
4877	-	38	37
1775	37	38	36
670	-	36	36

Indicator (1.2) 1a.3: Percentage of habitat for endangered[6] or threatened[7] vertebrate species over time.

Target (1.2) 1a.3.1:	**Acceptable variance:**
Woodland Caribou: No more than 20% of the area in pioneer or young seral condition and at least 20% of the area in old seral condition at key points in time. Trumpeter Swan: To buffer 100% of identified trumpeter swan lakes with a 200-metre no harvest buffer (reported annually).	Woodland Caribou: In 2009 pioneer/ young seral condition will be ≤ 18% of the area and for old seral condition will be ≥ 11% of the area. Trumpeter Swan: Zero

Status: Woodland Caribou: **Meets**
Trumpeter Swan: **Meets**

[5] H60 is the elevation above which 60% of the watersheds lie (the watershed area above the H60 is considered as the source area for the major snowmelt peak flows).
[6] Endangered: Any species facing imminent extirpation or extinction
[7] Threatened: Any species likely to become endangered if limiting factors are not reversed.

Woodland Caribou

This target is reported on at key points in time (2009, 2019, 2049, etc.). The percentage area in pioneer/young and old seral condition through key points in time for the 2005 SFMP versus the 2009 approved HPS is depicted in the following table.

Table 7. Comparison of Pioneer/Young and Old Seral Stages for Woodland Caribou through Key Points in Time.

	2005 SFMP Forecast		HPS	
Year	**Pioneer/Young (%)**	**Old (%)**	**Pioneer/Young (%)**	**Old (%)**
1999	13	10	13	10
2005	15	10	15	12
2009	18	11	16	12

In July 2008, the *West Central Alberta Caribou Landscape Plan* (WCACLP) was submitted to the Alberta Caribou Committee Governance Board. The WCACLP defines and identifies areas of primary caribou habitat intactness, including a portion of the range of the Little Smoky Caribou herd in the southern portion of Canfor's FMA area. Canfor has made a commitment in its Healthy Pine Strategy DFMP amendment to defer harvesting in the primary intactness area (see Figure 2) to year 2022. Canfor also committed to not harvest in the unfragmented areas outside of the primary intactness area until May 1 2011, as noted in the approval decision of the DFMP amendment (ASRD, 2010). Table 7 indicates that the pioneer/young seral stage is 2% favourable to the forecast and the old seral stage is 1% favourable to the forecast. With the anticipated spread of MPB, seral stage will be impacted as pine trees die. The effect of the Healthy Pine Strategy on the woodland caribou target has been modelled, and the results indicate that progress toward the pioneer and young seral stage target will be negatively affected whereas the old seral stage target can be achieved within the same time period as forecasted in the original DFMP. The models indicate that the Healthy Pine Strategy provides a more favourable outcome with respect to both seral stage targets than the modelled "disaster" scenario in which most of the pine is killed by mountain pine beetle.

Trumpeter Swan

Known trumpeter swan nest sites are protected with a 200-metre no-harvest buffer. Newly discovered water bodies supporting trumpeter swan habitat are confirmed by ASRD and their locations are provided to Canfor for inclusion in the company's spatial data base. The locations of 2009 harvest areas were superimposed onto known buffered water bodies indicating that no incursions occurred. No new sites were discovered in 2009.

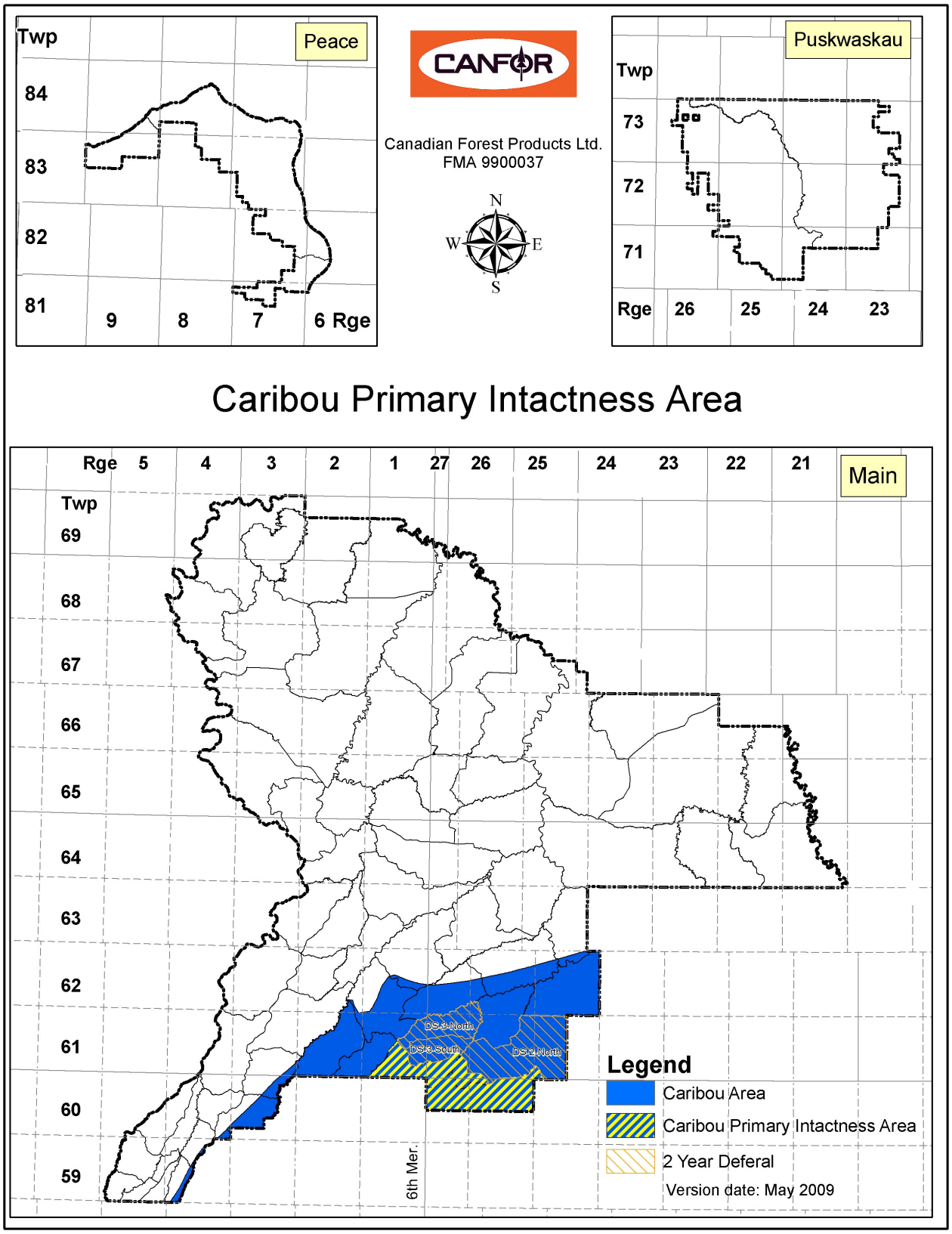

Figure 2. Caribou Primary Intactness Area

Indicator (1.2) 1a.4: Percentage of Canfor forestry staff trained to identify rare plants.

Target (1.2) 1a.4.1:	**Acceptable variance:**
100% of Canfor forestry staff receives training to identify and report rare plants (reported annually).	90% of forestry staff receives training to identify and report rare plants.

Status: Meets

All staff members requiring rare plant identification training have received training. A total of 4 new staff members (summer students) were trained in 2009 (Table 8). Training prepares individuals to find data regarding the probability of encountering rare plants and to process findings without endangering the plants or their habitats.

Table 8. Staff Trained in Rare Plant Identification and Reporting

	Forestry Employee	Date Trained
Full Time Forestry Employees	Operations Manager	16-Dec-05
	Operations Superintendent	12-Jun-01
	Planning Coordinator	12-Jun-01
	Forestry Coordinator	16-Dec-05
	Forestry Supervisor (Permitting)	12-Jun-01
	Forestry Supervisor (Silviculture)	2-May-07
	Forestry Supervisor (Silviculture)	6-May-08
	Forestry Supervisor (Planning)	12-Jun-01
	Forestry Supervisor (Planning)	16-Dec-05
	Forestry Supervisor (Log Haul)	8-Jun-05
	Forestry Supervisor (Harvesting)	16-Dec-05
	Forestry Supervisor (Harvesting)	6-May-08
	Forestry Supervisor (Harvesting)	16-Dec-05
	Forestry Supervisor (Roads)	16-Dec-05
	Landuse Coordinator	16-Dec-05
Summer Student Forestry Employees	Silviculture Student	5-May-09
	Silviculture Student	5-May-09
	Layout Student	5-May-09
	Layout Student	5-May-09
Total Required Forestry Personnel Trained		**100%**

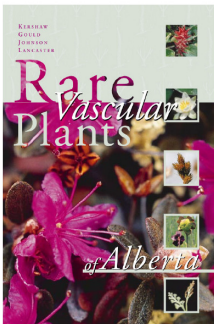

Figure 3. Rare Vascular Plants of Alberta Book

Indicator (1.2) 1a.5: Number of biodiversity monitoring programs in which Canfor actively participates.

Target (1.2) 1a.5.1:	**Acceptable variance:**
Participates in 1 or more biodiversity monitoring program(s) annually.	Zero

Status: Meets

Canfor continues to support two biodiversity monitoring programs.

Commencing in 1997, Canfor and other partners established the Ecological Management Emulating Natural Disturbance (EMEND) project located near Peace River, Alberta. The EMEND project is a large-scale variable retention harvest experiment designed specifically to answer questions about how retention of green tree residuals affects harvest cost, forest regeneration, patterns of succession, biodiversity, nutrient cycling, ground water characteristics and public perception. EMEND is a long-term project that began in 1998 and is forecast to run for one stand rotation, or approximately 80 to100 years. The project has two primary objectives:

- To determine which forest harvest and regenerative practices best maintain biotic communities, spatial patterns of forest structure and functional ecosystem integrity in comparison with mixed-wood landscapes that have originated through wildfire and other inherent natural disturbances; and
- To employ economic and social analyses to evaluate these practices in terms of economic viability, sustainability and social acceptability. http://www.emend.rr.ualberta.ca/index.asp.

Canfor has been a partner in the funding of the EMEND project since inception.

In 2009, Canfor continued to provide funding and be on the EMEND management committee. Canfor has committed the unused funds from 2009 to the 2010 season. In addition, Canfor was active in 2009 pursuing other funding sources for EMEND. The committee was successful in securing additional funds which will sustain EMEND through 2010.

Canfor also continues to monitor and support the Alberta Biodiversity Monitoring Program. **http://www.abmi.ca/abmi/home/home.jsp**.

Indicator (1.2) 1a.6: Percentage (volume/ha) of Coarse Woody Debris (CWD) on harvested areas.

Target (1.2) 1a.6.1:	**Acceptable variance:**
100% of the pre-harvest volume per hectare CWD will be retained on harvest areas annually.	>90% of the pre-harvest CWD volume per hectare.

Status: Assessment postponed

As reported in last year's APMR, this assessment has been postponed to 2010. Previous surveys have indicated that the amount of CWD left after harvesting exceeds the pre-harvest volume.

Canfor will be recommending a change to this target to the FMAC in 2010. The change will require the assessment of presence or absence of CWD, rather than the collection of physical ground data. Canfor will develop a Standard Work Procedure for machine operators to give them guidance around the identification of CWD and procedures for dealing with CWD during harvesting operations.

Indicator (1.2) 1a.7: Percentage of area (ha) in watercourse buffers.

Target (1.2) 1a.7.1:	**Acceptable variance:**
The actual area in watercourse buffers is a minimum of 100% of the planned (DFMP) area (ha) annually.	Zero

Status: Meets

A total of 37,716 hectares are designated in the DFMP as watercourse buffers. A comparison of the area of planned watercourse buffers reported in the 2009 Annual Operating Plan (AOP) to the area designated (i.e. planned) as DFMP watercourse buffers was completed. Table 9 indicates that during the development of the 2009 AOP an accumulated 4 percent of the timber harvesting landbase (1,510 ha) was reclassified as watercourse buffers. The primary reason for this reclassification is that the original DFMP watercourse buffer map layer did not identify all streams that are now present on the landbase. In addition, buffers planned in the AOP are often extended to take advantage of existing terrain features so that stable boundaries are established.

Note: It is assumed that the area planned as watercourse buffers in AOP's equals the actual area in watercourse buffers specified in the target.

Table 9. DFMP Buffer Area versus AOP Buffer Area

Year	DFMP Buffer Area (ha)	Additional Area Buffered (deleted) in the AOP (ha)	DFMP Buffer Area Not Used (added back to DFMP landbase) (ha)	Net Addition of Landbase into Buffers (ha)	Net Total Area in Buffers (ha)	% of Landbase in Buffers over the DFMP
2006	37716	4,415	2,766	1,649	39,365	4%
2007	37716	4,452	2,813	1,639	39,355	4%
2008	37716	4,492	2,944	1,548	39,264	4%
2009	37716	4,494	2,984	1,510	39,226	4%

Indicator (1.2) 1a.8: Percent of the area harvested across the FMA area with structure retention.

Target (1.2) 1a.8.1:	**Acceptable variance:**
A minimum of 10% of the area harvested across the FMA area will contain structure retention accumulated annually beginning in 2008.	Minimum of 5% of the area harvested across the FMA area will contain structure retention accumulated annually.

Status: Meets

In 2009 this target was changed from 25 to 10 percent with an acceptable variance of 5 percent. This change was endorsed by the FMAC on April 15, 2009. The purpose of this change was to account for the fact that less structure retention was being left in harvested pine stands, which typically are more homogenous and have less opportunity for structure retention. In addition, the mountain pine beetle ground rules (REF) do not allow for retention of green lodgepole pine due to the current mountain pine beetle epidemic. Deciduous harvested blocks were included in this calculation.

The target and acceptable variance is met as indicated in Table 10

Table 10. Area (ha) and Percentage of Structure Retention across the FMA Area

Timber Year	Total Harvested (ha)	Total Retention (ha)	Total Retention % (accumulated average)
2008	2,826	320	11.3%

Critical Element (1.3): Genetic Diversity

Conserve genetic diversity by maintaining the variation of genes within species.

Value (1.3) 1: Respect the natural genetic diversity.
Objective (1.3) 1a: Genetic diversity will be maintained on the landscape.
Indicator (1.3) 1a.1: Mean Patch Size (MPS) (ha).

Target (1.3) 1a.1.1:	**Acceptable variance:**
The MPS (ha) for 2009 will not fall below the MPS forecasts for each reporting unit.	MPS will not fall below 15% of the area of the 2009 MPS forecast for the FMA area and the Peace, Puskwaskau and Main parcels

Status: Meets

Mean Patch Size (MPS), together with patch size distribution in various seral stage[8] classes, provides an insight into the level of fragmentation of the forestland. Forest patches are created by natural disturbance (wind, fire, pests etc.) and through harvesting activities. Over an entire rotation, forest management activities can alter the distribution and size of patches by fragmenting the landscape beyond the limits of natural variability. Many of the landscape level bird studies report mean patch size to be an effective indicator of incidence and reproductive output (Edenius and Sjoberg 1997; Roberts and Norment 1999).

The MPS results reflect implementation of the DFMP Healthy Pine Strategy (HPS) amendment. All MPS results are within the acceptable variance as compared to the updated forecast for the 2005 SFMP.

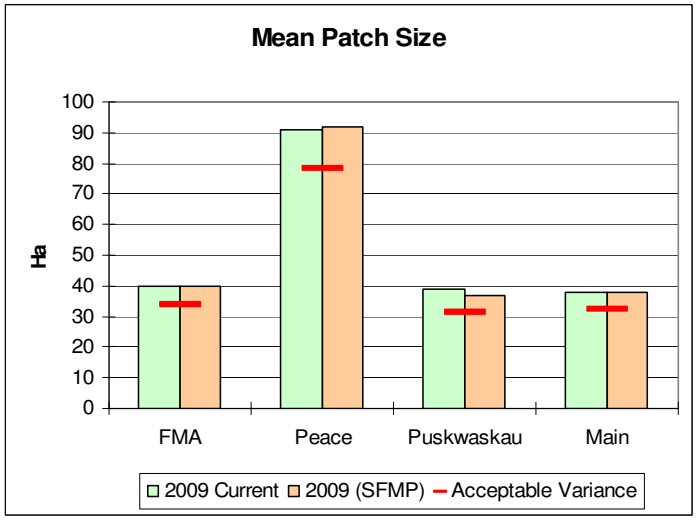

Figure 4. MPS Forecast for each FMA Parcel

[8] Seral stage: The series of plant community conditions that develop during ecological succession from bare ground to the potential plant community capable of existing on a site where stand replacement begins and the secondary successional process starts again.

Indicator (1.3) 1a.2: Mean Nearest Neighbor Distance (MNND) (m).

Target (1.3) 1a.2.1:	**Acceptable variance:**
The MNND for 2009 will not exceed the MNND forecasts.	MNND will not exceed +15% of the 2009 forecast for the FMA area and the Peace, Puskwaskau and Main parcels.

Status: Meets

Mean Nearest Neighbor Distance (MNND) describes the proximity of forest patches, thus providing a quantitative measure of connectivity (Schumaker, 1996; With, 1999). Connectivity is a complementary measure of the degree to which forest patches can be considered joined together on the basis of a minimum acceptable separation distance. The connectivity (distance) of habitat patches is extremely important for large animals such as moose and caribou, two of the indicator species on the FMA area.

The MNND results reflect implementation of the DFMP Healthy Pine Strategy (HPS) amendment. All MNND results are within the acceptable variance as compared to the updated forecasts for the 2005 SFMP.

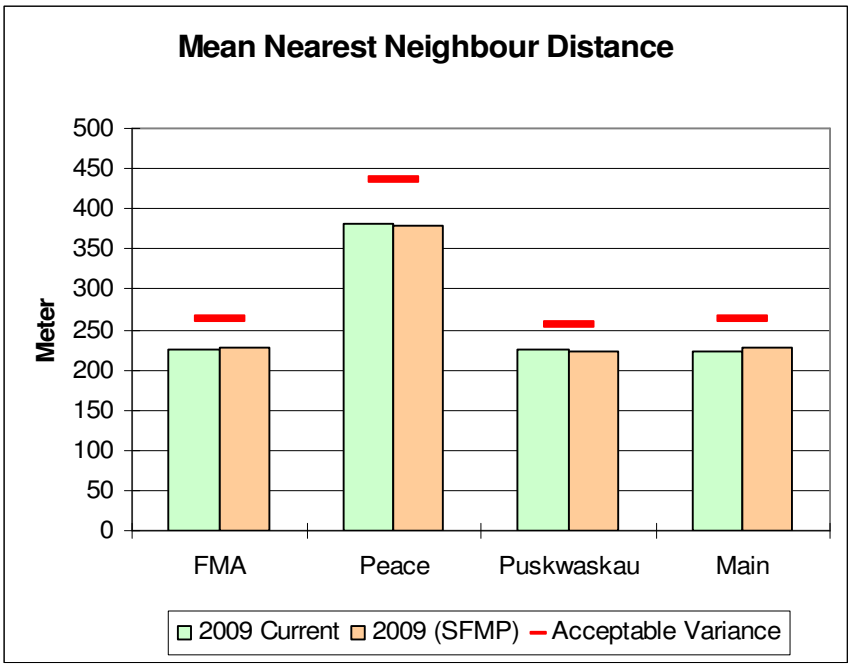

Figure 5. MNND Forecast for each FMA Parcel

Indicator (1.3) 1a.3: Area Weighted Mean Shape Index (AWMSI).

Target (1.3) 1a.3.1:	**Acceptable variance:**
The AWMSI for 2009 will not fall below the AWMSI forecast.	AWMSI will not decrease by –15% of the 2009 forecast for the FMA area and the Peace, Puskwaskau and Main parcels.

Status: Meets

Area-Weighted Mean Shape Index (AWMSI) provides a measure of patch shape complexity based on the perimeter-to-area ratio. The complexity of patch shapes in combination with the area of the shapes can influence many ecological processes. Small mammal migration, woody plant colonization and animal foraging strategies are influenced by patch shape. Many ecological effects attributed to the complexity of shape are actually related to "edge effects. In addition, shape influences the operability and economics of forest harvesting. For example, elongated harvest areas require more road construction than compact harvest areas and thus are more costly. Planned harvest areas are generally simple in shape and are usually somewhat rectangular. Where this is the case, the lack of measured complexity can be compensated operationally by retaining single trees or patches near harvest area boundaries and by establishing minor boundary changes in the field to create more edges relative to area.

The AWMSI results reflect implementation of the DFMP Healthy Pine Strategy (HPS) amendment. All AWMSI results are within the acceptable variance as compared to the updated forecasts for the 2005 SFMP.

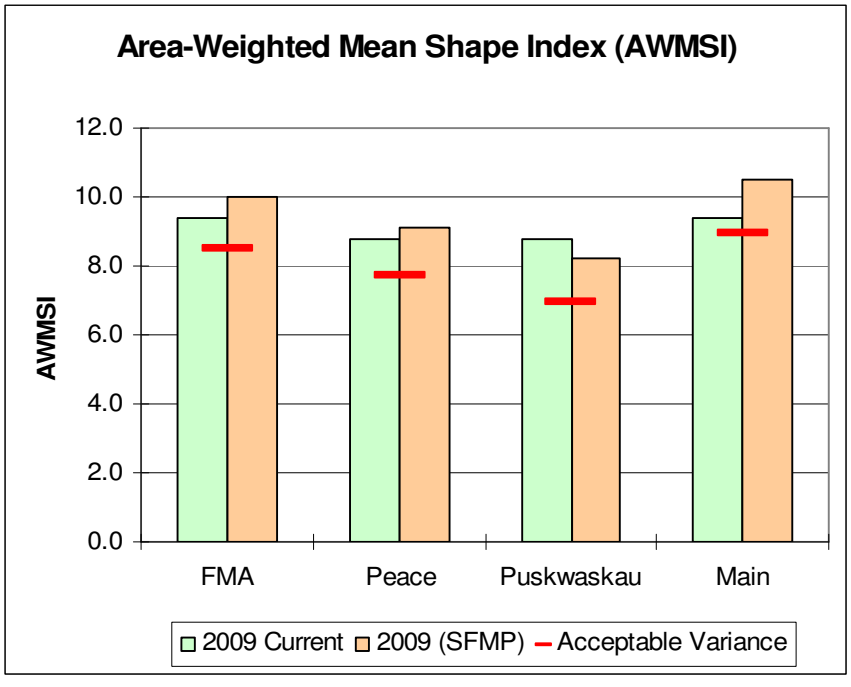

Figure 6. AWMSI Forecast for each FMA Parcel

Indicator (1.3) 1a.4: Percentage of total area by patch size class.

Target (1.3) 1a.4.1:	**Acceptable variance:**
100% of the total area by patch size class will meet the 2009 projections.	±10% of the 2009 forecast.

Status: Meets

Patch size distributions were derived for the Boreal Forest and Foothills Natural regions based on theoretical fire-return intervals (ORM, 2000). Targets for the Boreal Forest Natural region were derived from measured patch size classes of four 20-year periods of unmanaged forests (Delong and Tanner, 1996); while targets for the Foothills Natural region were based on the distribution of patch sizes in historical pre-suppression air photos of the Foothills Model Forest in Hinton, Alberta (Andison, 1997).

The patch size results reflect implementation of the DFMP Healthy Pine Strategy (HPS) amendment. Patch sizes are within the acceptable variance as compared to the updated forecasts for the 2005 SFMP.

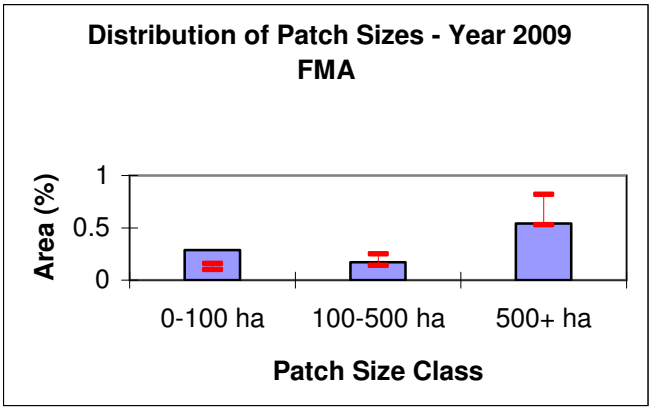

Figure 7. FMA Patch Size Forecast

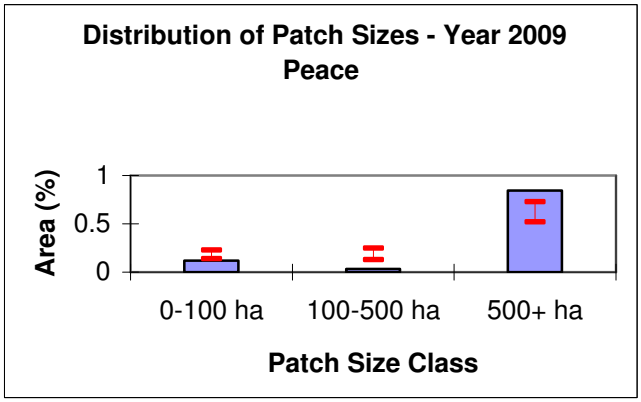

Figure 8. Peace Patch Size Forecast

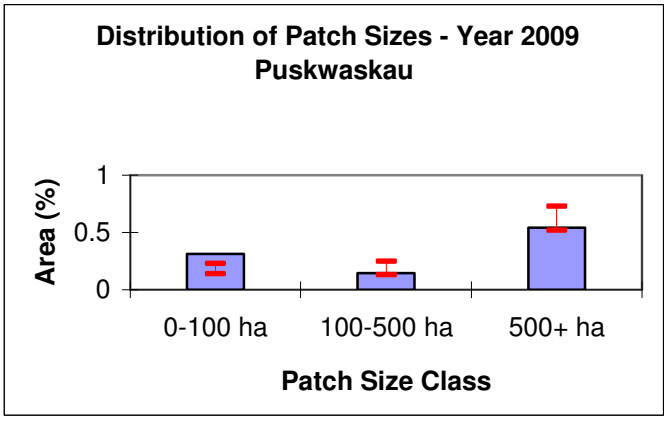

Figure 9. Puskwaskau Patch Size Forecast

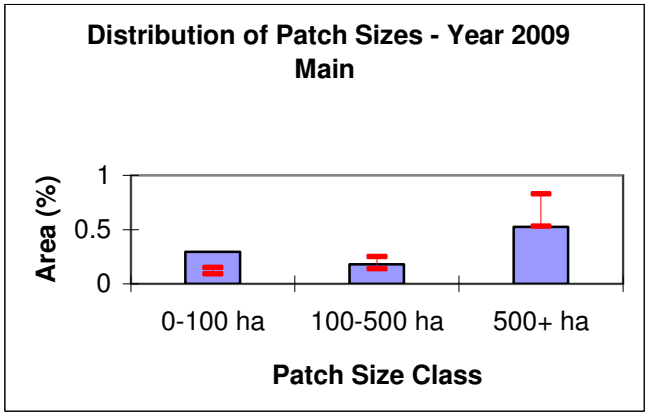

Figure 10. Main Patch Size Forecast

Indicator (1.3) 1a.5: Percentage of area planted with genetically improved stock.

Target (1.3) 1a.5.1:	**Acceptable variance:**
A maximum of 70% of area is planted with genetically improved stock accumulated annually.	Zero.

Status: Meets

Canfor began planting genetically improved lodgepole pine stock on the FMA area in 2002. In 2004, white spruce genetic stock became available and has been planted on the FMA area since that time. In order to maintain sufficient genetic diversity on the FMA, the proportion of genetically improved stock that is planted is controlled. Table 11 indicates that since 2002, the accumulated percent of area planted with genetically improved stock is well within the target.

Table 11. Area Planted with Genetically Improved Stock

Year	Total Area Planted (cumulative) (ha)	Total Area Planted with Genetically Improved Stock (cumulative) (ha)	% Area Planted with Genetically Improved Stock
2002	2541	252	10%
2003	5643	460	8%
2004	8529	1295	15%
2005	11525	2639	23%
2006	14343	4097	29%
2007	17166	5423	32%
2008	19239	6806	35%
2009	21343	8150	38%

Indicator (1.3) 1a.6: Percentage of grass seed mix that contains restricted and noxious weeds.

Target (1.3) 1a.6.1:	**Acceptable variance:**
100% of utilized grass seed mix will not contain restricted or noxious weeds as identified in the Weed Control Act annually.	Zero

Status: Meets

Seed purity is confirmed prior to seeding by reviewing the “Certificate of Seed Analysis” provided by the seed seller. All seed used in reclamation, deactivation, erosion control and new road construction in 2009 was free of restricted or noxious weed seeds.

Objective (1.3) 1b: Conditions that support genetic diversity of species will be maintained.
Indicator (1.3) 1b.1: Percentage of seeds collected and seedlings planted in accordance with the "*Standards for Tree Improvement in Alberta (STIA)*" (ASRD, 2009)*.

Target (1.3) 1b1.1:	**Acceptable variance:**
100% of seeds collected and seedlings planted annually will be in accordance with "*Standards for Tree Improvement in Alberta*".	Zero

Status: Meets

*On May 1, 2009, ASRD released a new version of STIA and renamed it to "Forest Genetics Resource Management and Conservation Standard (FGRM). (ASRD, 2009).

No wild seed was collected in 2009. Canfor planted 2.81 million seedlings on the FMA area in 2009. All of the trees planted were in accordance with the FGRM guidelines.

Canfor will be recommending a change to this indicator and target to the FMAC in 2010 to reflect the change in title to the document referenced. This is an administrative change request only.

Critical Element (1.4): Protected Areas & Sites of Special Biological Significance

Respect protected areas identified through government processes. Identify sites of biological significance within the FMA and implement management strategies appropriate to their long-term maintenance.

Value (1.4) 1: Identified protected areas and sites that have special biological significance.
Objective (1.4) 1a: The natural states and processes to maintain protected areas and sites that have special biological significances will be conserved.
Indicator (1.4) 1a.1: Percentage of significant wildlife mineral licks conserved.

Target (1.4) 1a.1.1:	**Acceptable variance:**
100% of significant wildlife mineral licks will be conserved annually.	Zero.

Status: Meets

Canfor FMA 9900037 Operating Ground Rules (ASRD 2008) require 100 meter buffers to be established and not harvested on identified "natural" mineral licks.

In 2009, 7 significant "natural" mineral licks were identified, buffered in the field and mapped to ensure harvesting will not occur within them.

Table 12. Natural Mineral Licks Buffered

Year	Natural Mineral Licks
2003 and previous years	60
2004	16
2005	15
2006	8
2007	4
2008	2
2009	7
Total	**112**

Indicator (1.4) 1a.2: Percentage of identified protected area and special biological significant sites that are conserved.

Target (1.4) 1a.2.1:	**Acceptable variance:**
100% of identified protected areas and special biological significant sites will be conserved annually.	Zero.

Status: Meets

Spatial analysis of the Dunvegan West Wildlands, Parabolic Sand Dunes, watercourse buffers, wildlife mineral licks, trumpeter swan buffers, and historical resources confirmed that none of the sites were impacted by timber harvesting. (Table 13)

In 2009, 7 wildlife licks were identified and buffered (26.3 ha) and 20 historical sites were identified and delineated from proposed harvest areas.

Table 13. Protected Areas and Sites of Special Biological Significance

Classification	Identifier	2006 Area (ha)	2007 Area (ha)	2008 Area (ha)	2009 Area (ha)	% FMA area
Protected areas	Dunvegan West Wildland Provincial Park	4,471	4,471	4,471	4,471	0.7%
Areas of Special Biological Significance	Parabolic sand dunes [2]	6,114	6,114	6,114	6,114	0.9%
	Watercourse buffers [3]	39,365	39,355	39,264	39,226	6.0%
	Wildlife mineral licks	295	299	300	326	0.1%
	Trumpeter swan buffers [4]	553	553	553	553	0.1%
	Historical resources [5]	0	70 Sites	75 Sites	95 Sites	NA
	subtotal	46,327	46,321	46,231	46,219	7.1%
	Total	**50,798**	**50,792**	**50,702**	**50,690**	**7.8%**

Notes:

1. FMA area is 649,160 ha
2. Parabolic sand dunes - area was incorrectly reported in the SFMP (2006) due to a typo. (6141 vs 6114)
3. Watercourse Buffers are adjusted annually to account for the variability of buffers used and not used from the DFMP - see indicator (1.2) 1a.7.1 for explanation.
4. Swan Buffers were revised in 2006 from those indicated in the SFMP (2005) and adjusted in 2008 due to a misinterpretation of the data (previously reported area included Lake area;in 2008 area adjusted to exclude lake area and include only the AVI buffe
5. All sites will be mapped and 'protected' as prescribed by a certified archaeologist. To date, less than 1 ha has been prescribed into "buffers" (15m X 100m buffer on one site on an edge of a harvest opening). The majority of 'protection' of identifie

4. Criterion 2: Maintenance and Enhancement of Forest Ecosystem Condition and Productivity

Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.

Critical Element (2.1): Forest Ecosystem Resilience

Conserve ecosystem resilience by maintaining both ecosystem processes and ecosystem conditions.

Value (2.1) 1: Healthy forest ecosystem.
Objective (2.1) 1a: Factors that lead to forest ecosystem health will be identified and maintained.
Indicator (2.1) 1a.1: Percentage of identified prescribed insect and disease areas scheduled for treatment.

Target (2.1) 1a.1.1:	**Acceptable variance:**
100% of the identified prescribed insect and disease treatments will be scheduled for treatment annually.	Zero

Status: **Meets**

The FMAC Committee discussed whether the original indicator of (2.1) 1a.1 should be changed to specifically address MPB. The point was made that there are other forest pests besides MPB that need to be monitored on the FMA. The FMAC advised Canfor to retain the original indicator, with the exception that the term "prescribed" be added to the indicator description. FMAC also advised Canfor to add a new indicator specifically for MPB harvesting. (See new indicator (2.1) 1a.2 following)

MPB continues to be the only forest insect and disease that requires treatment. In the 2008 timber year, 72 out 78 harvested areas required prescriptions for treatment of MPB. 100% of the blocks that were prescribed for treatment were harvested.

Canfor continues to work with Alberta Sustainable Resource Development to coordinate our efforts in suppressing this forest pest.

Table 14. Percent of MPB Area Harvested vs. Prescribed

2008 Timber Year	Total Area Harvested (Ha)	MPB Areas Prescribed for Harvest (Ha)	MPB Areas Harvested (Ha)	% MPB area harvested vs perscribed
Deep North	109.1	109.1	109.1	100%
E8	72.0	0.0	0.0	100%
Economy South	420.6	420.6	420.6	100%
Latornel	485.8	485.8	485.8	100%
Peace	287.7	287.7	287.7	100%
Smoky	601.4	572.2	572.2	100%
Total	**1,976.6**	**1,875.4**	**1,875.4**	**100%**

Value (2.1) 1: Healthy forest ecosystem.
Objective (2.1) 1a: Factors that lead to forest ecosystem health will be identified and maintained.
Indicator (2.1) 1a.2: Percent of annual harvest area within Mountain Pine Beetle (MPB) pine susceptible stands as defined in the Detailed Forest Management plan, Healthy Pine Strategy amendment.

Target (2.1) 1a.2.1:	**Acceptable variance:**
90% of the annual harvest area is within MPB pine susceptible stands beginning in the 2009 timber year.	80% of the annual harvest area is within MPB pine susceptible stands beginning in the 2009 timber year.

Status: Not a Scheduled Reporting Time

This is a new indicator created as recommended by the FMAC (see indicator (2.1) 1a 1.1 for details) to deal specifically with the harvesting of the Mountain Pine Beetle. This indicator is scheduled for reporting in the 2009 timber year.

Value (2.1) 2: Ecosystem resilience.
Objective (2.1) 2a: Processes that promote ecosystem resilience will be identified and maintained.
Indicator (2.1) 2a.1: Percentage of harvest areas meeting the regeneration standards as confirmed by the completion of an establishment survey.

Target (2.1) 2a.1.1:	**Acceptable variance:**
100% of harvest areas meet the required regeneration standards as confirmed by completion of establishment surveys, measured on a 5-yr. rolling average.	Minimum of 90% of the harvested areas will meet the regeneration standards on a 5-year rolling average.

Status: Meets

2009 was the first year that Alternate Regeneration Standards (ARS) for establishment surveys (ASRD 2009a) were implemented on Canfor's FMA.

Under the direction of the Alberta government, ARS will provide a direct link between actual regeneration performance and growth and yield projection models used in the determination of annual allowable cut. This legislated survey change allows Canfor to assess blocks aerially, with ground verification, to determine if they meet establishment standards. In 2009 Canfor completed establishment surveys on 5,990.6 hectares on the FMA, representing three years of harvest. Of these survey's, only 9.7 hectares were determined to be Not Satisfactorily Restocked (NSR), which is less than 1% of the surveyed area.

Table 15. Establishment Survey Results

Stocking Status	Area of Surveys (Ha)	% SR
NSR[2]	961	7%
Regeneration Standard Met[3]	17,897	95%
Total	18,858	

[1] **Establishment surveys** -for the purpose of this report, data is combined for all establishment surveys completed on the FMA area from the blocks harvested in the **1996-2004 timber years** to obtain arolling average (coniferous, mixedwood and deciduous).

[2] **NSR** - not satisfactorily restocked - harvested area surveyed did not meet the requirements of the establishment survey. Only coniferous surveys completed between years 4-8 and deciduous surveys completed between years 3-5 were considered to determine ac

[3] **Regeneration Standard Met**- The regeneration standard can be met by achieving one of the following status':**SR** - Satisfactorily Restocked - meets all requirements of the establishment survey. **CSR** - Conditionally Satisfactorily Restocked - applies only to

Indicator (2.1) 2a.2: Percentage of harvest areas meeting the regeneration standards as confirmed by completion of a performance survey.

Target (2.1) 2a.2.1:	**Acceptable variance:**
100% of harvest areas meet the required regeneration standards as confirmed by completion of performance surveys, measured on a 5-year rolling average.	Harvest areas obtaining skid clearance between March1, 1991 and April 30, 2001, for harvest areas passing performance surveys is a minimum of 85%; Harvest areas obtaining skid clearance after April 30, 2001 for harvest areas passing performance surveys is a minimum of 95%.

Status: Assessment Postponed

2009 was the first year that Alternate Regeneration Standards (ARS) for performance surveys (ASRD 2009b) were implemented on Canfor's FMA.

Due to the new ARS, blocks harvested after 1994 will be reported in a table that will show results of Mean Annual Increment (MAI) performance.

The results from the 2009 surveys are not compiled at the time of writing. Table 16 shows the results from the surveys conducted over the past 4 years (1991-1994 timber years).

Canfor will be recommending a change to this target to the FMAC in 2010 to align with the new Alberta Regeneration Standards (ARS) for performance surveys.

Table 16. Performance Survey Results

Stocking Status	Area of Surveys (Ha)	%SR
SR [2]	8,622	
NSR[3]	2394	
Total	11,016	**78%**

[1]**Performance Surveys** -This report is based on a 4-year rolling average, as only 4 years of harvest areas were due for survey (1991, 1992, 1993 & 1994 timber years).

[2] **SR** - Satisfactory restocked - has met all performance survey requirements including Free to Grow (FTG).

[3] **NSR** - not satisfactorily restocked - harvested area surveyed did not meet the requirements of the performance survey.

Critical Element (2.2): Forest Ecosystem Productivity

Conserve ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species.

Value (2.2) 1: Sustained forest ecosystem productivity.
Objective (2.2) 1a: Ecosystem conditions that sustain productivity will be identified and maintained.
Indicator (2.2) 1a.1: Percentage of productive areas, adjacent to proposed harvest boundaries, impacted by windfall that receives a silviculture prescription annually.

Target (2.2) 1a.1.1:	**Acceptable variance:**
100% of the productive areas, adjacent to proposed harvest area boundaries, impacted by windfall receive a silviculture prescription annually.	Zero

Status: **Meets**

No significant windfall events were recorded that required silviculture prescriptions in 2009.

Indicator (2.2) 1a.2: Percentage of reforestation of temporary "in block" roads used for extraction of timber.

Target (2.2) 1a.2.1:	**Acceptable variance:**
100% of temporary "in block" roads used for extraction of timber will be reforested within 18 months after the end of the timber year of harvest.	Zero for the percentage of roads reforested. Timing of reforestation is +10 months.

Status: Meets

For areas harvested during the 2007 timber year, temporary "in block" roads were planted within eighteen months on 89% of the harvested areas. One harvest area did not meet the target of 18 months due to log inventory left adjacent to the roads. This inventory was hauled during the following harvesting season (2008 timber year). These roads were then planted during the 2009 spring planting season, which is within the acceptable variance.

Canfor has greatly improved its success in meeting this target since 2004 as indicated in Table 17.

Table 17. Percentage of "In-Block" Roads Planted Within 18 Months

Timber Year	# Harvest Areas	"In Block" Roads within Harvest Areas Planted Within 18 Months (%)	"In Block" Roads within Harvest Areas Planted 19-28 Months (%)	"In Block" Roads within Harvest Areas Planted after 28 Months (%)
2004	114	21%	74%	5%
2005	69	55%	44%	1%
2006	32	97%	3%	0%
2007	9	89%	11%	0%

Indicator (2.2) 1a.3: Percentage of tasks outlined in the approved Growth and Yield Monitoring Plan (GYMP) completed on schedule.

Target (2.2) 1a.3.1:	**Acceptable variance:**
100% of tasks outlined in the approved Growth and Yield Monitoring Plan are completed on schedule.	A variance of + 6 months is acceptable on the implementation of the schedule of tasks outlined in the approved growth and yield monitoring plan.

Status: Meets

The purpose of the Growth and Yield Monitoring Plan is to utilize the data derived from field measurements of established plots and other samples to establish future annual allowable cut[9] calculations and validation of present yield[10] predictions and reforestation performance. The growth and yield programs are critical to the development of DFMPs. A list of growth and yield programs is identified in the SFMP.

The following activities occurred in 2009:

- Re-measurement of 25 permanent sample plots;
- Establishment of 40 planned post harvest regenerated stand plots;
- Adherence to the requirements of the Forest Genetics Resource Management and Conservation Standard (FGRM) (ASRD, 2009) by tagging, numbering and recording all genetically improved trees during installation of new growth and yield monitoring plots;
- Active membership in the Foothills Growth and Yield Association, Western Boreal Growth and Yield Association;
- Participation in the establishment of a provincial Growth and Yield Projection System; and
- Participation on Alberta Regeneration Standards in developing a program that links regeneration to Growth and Yield.

[9] Annual Allowable Cut: the volume of wood (m^3) that can be harvested in one year from any area of forest under a sustained yield management regime.
[10] Yield: the volume of wood that can be removed that is equal to growth within the total forest.

5. Criterion 3: Conservation of Soil and Water Resources

Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.

Critical Element (3.1): Soil Quality and Quantity

Conserve soil resources by maintaining soil quality and quantity.

Value (3.1) 1a: Soil productivity.
Objective (3.1) 1a: Soil productivity will be maintained or enhanced.
Indicator (3.1) 1a.1: Site Index[11]

Target (3.1) 1a.1.1:	**Acceptable variance:**
Average accumulated post harvest site index will not be less than average pre harvest site index (with reporting commencing in 2008).	90% confidence interval on the average difference between pre and post-harvest site indices must include zero or indicate that the post-harvest site indices are significantly greater than the pre-harvest site indices.

Status: Completed

The status of this target is now completed. This target was reported as meets in the 2008 APMR. Information remains the same as reported in 2008 APMR.

Site index is a common measure of the overall productivity of forested ecosystems (inferred through tree growth). The measurement of tree growth is directly related to the productivity of the site. Consequently, tree growth is a general indication of the overall site productivity.

In June 2008, Canfor completed a *Regenerated Stand Productivity In North Central Alberta Report 2 Canadian Forest Products Forest Management Area* (Canfor 2008) in conjunction with Weyerhaeuser and Alberta Newsprint Company that was approved by ASRD on June 24, 2008. After adjustment, the overall average site index change from pre to post harvest indicated a 15% increase in site index (see Table 18). These results indicate that average site index for each of the three (3) major FMA species is higher on artificially regenerated sites than on naturally regenerated sites.

Table 18. 2003 DFMP Weighted Average Site Index Assumptions Compared with the Results of the Regenerated Stand Productivity (RSP) Project.

Species	Natural Subregion	Area (ha)	2003 DFMP Site Index	RSP Project Site Index	Difference (m)	Change (%)
AW	Boreal Mixedwood	17,665	17.7	21	3.6	20%
	Lower Foothills	21,198	17.7	20	2.6	14%
	Upper Foothills	2,318	17.7	20	1.8	10%
PL	Boreal Mixedwood	11,368	16.6	21	4.7	28%
	Lower Foothills	29,470	16.4	19	2.7	16%
	Upper Foothills	35,140	14.9	18	2.9	19%
SW	Boreal Mixedwood	32,321	16.5	18	1.0	6%
	Lower Foothills	34,803	16	18	2.3	14%
	Upper Foothills	9,800	15.1	18	3.3	22%
Total		**194,084**	**16.5**	**19**	**2.4**	**15%**

[11] Site index: A measure of forest site productivity expressed as the average height of the tallest trees in the stand at a defined index age. Common Index ages are 40, 50, 70, 75, and 100 years. This is usually expressed as the predicted height for a specific tree species at a given breast height age.

Value (3.1) 2: Soil quantity
Objective (3.1) 2a: Soil erosion will be minimized.
Indicator (3.1) 2a.1: Number of slumping events caused by road construction.

Target (3.1) 2a.1.1:	**Acceptable variance:**
Zero major slumping events annually caused by road construction.	Zero

Status: Meets

Mass wasting within the FMA area is classified according to the area of soil impacted. The three (3) categories are:

- Road grade cut failures ≤ 100 m^2;
- Minor slumps affecting ≤ 2500 m^2; and
- Major slumps affecting >2500 m^2.

Inspections indicate there were no new major slumps caused by road construction in 2009. Table 19 lists the minor slumps / road grade cut failures that were identified or inspected in 2009.

Table 19. Slumps / Road Grade Cut Failures Inspected in 2009

Road	Legal Description	GENUS Station	Date of Original Slump	Size (m^2)	2009 Inspection
Ridge Road (LOC 030770)	TWP 60 RGE 4 W6M	7+659	2004	300	Some additional vegetation establishing, minor settling continuing.
Norris Road (LOC 971399)	TWP 59 RGE 5 W6M	14+444	2000	250	Wet + seeping water to ditchline. Movement limited, continue to monitor.
Norris Road (LOC 971399)	TWP 59 RGE 5 W6M	15+430	2001	200	Some additional movement noted. No immediate concerns to the water values nearby. Inspected with P.Eng, report pending.
Waskahigan Mainline (LOC 1292)	TWP 64 RGE 1 W6M	0+506	2004 +2005	200	Slow creep continues. No new major cracking. Veg established, no erosion concerns. Some remediation completed - continue to monitor.
Big Mountain Road (LOC 1206)	TWP 70 RGE 5 W6M	17+100	1999	200	No further movement noted
Bolton Main (LOC 033475)	TWP 59 RGE 4 W6M	0+100 to 1+100	2005	100	Further movement is limited. Monitor
Bolton Main (LOC 033475)	TWP 59 RGE 4 W6M	2+000	2005	250	No further movement noted. Monitor

Indicator (3.1) 2a.2: Number of slumping events due to harvesting activities.

Target (3.1) 2a.2.1:	**Acceptable variance:**
Zero slumping events annually due to harvesting activities.	1 slump ≤ 100 m^2 annually.

Status: **Meets**

Ground surveys conducted in 2009 indicate that harvesting activities have caused no in-block slumps on steep or sensitive sites. In addition to ground based monitoring and inspections, aerial flights are conducted for various operational activities throughout the year.

Indicator (3.1) 2a.3: Number of significant erosion events[12] related to silviculture, harvesting, and road activities.

Target (3.1) 2a.3.1:	**Acceptable variance:**
Zero significant erosion events related to silviculture, harvesting, and road activities annually.	Less than 5 events per year.

Status: **Meets**

Canfor conducts annual inspections on License of Occupation (LOC) roads. Erosion events on these LOC roads are tracked and reported under "*Objective (3.2) 1a: Water quality will be conserved*". There are a number of crossings that have been identified as having the potential to be a risk for a significant erosion event. Refer to *Objective (3.2) 1a* and the target for further details.

Other secondary roads, in-block and between block roads (S and R roads), as well as harvesting, road construction and silviculture operations were inspected and monitored throughout the year utilizing a risk-based approach in accordance with the procedures set out in Canfor's Forest Management System (risk assessment matrices for blocks/roads/projects). In addition to ground based monitoring and inspections, helicopter overview flights are conducted for blocks and roads to determine the presence of surface erosion or mass wasting and to evaluate the status of debris disposal and reforestation activities.

Indicator (3.1) 2a.4: The number of blocks that require prompt road deactivation.

Target (3.1) 2a.4.1:	**Acceptable variance:**
100% of the blocks that have temporary roads will be permanently deactivated within 6 months after usage is complete.	Zero.

Status: **Meets**

At the April 15, 2009 FMAC meeting, Canfor recommended wording changes for the indicator and target to the FMAC. The FMAC agreed to the following wording changes; For the indicator - the words "the number of blocks that require**"** was inserted. For the Target – the words "the blocks that have" was inserted. These were purely administrative changes to clarify the target.

Table 20 indicates the number of blocks in the 2008 timber year which were accessed by temporary roads. Of the 78 harvest units, 71 required deactivation and were all completed within 6 months.

[12] Significant erosion event: erosion events where sediment is transported directly into a watercourse

Table 20. Temporary Roads Deactivation – 2008 Timber Year

	Total Harvest Units	# of Harvest Units that required Permanent Deactivation	Harvest Units with Reclamation Completed within 6 months of Last Activity	Harvest Units with Reclamation Not Completed within 6 months of Last Activity
# of Harvest Units Containing Temporary Roads	78	71	71	0
Percent			100%	0%

Objective (3.1) 2b: Soil will be conserved on site.
Indicator (3.1) 2b.1: Percentage of soil disturbance prescriptions that conform to Section 9.0.3 of the *Operating Ground Rules*.

Target (3.1) 2b.1.1:	**Acceptable variance:**
100% of prescriptions created throughout the year conform to Section 9.0.3 of the *Operating Ground Rules*.	Zero

Status: Meets

For the 2008 timber year, prescriptions for 35 planned harvest units exceeded the allowable ground disturbance as outlined in *Canfor FMA 9900037 Operating Ground Rules,* however all 35 harvest units were addressed either through Final Harvest Plan or Annual Operating Plan submissions, and received government approval.

Indicator (3.1) 2b.2: Percentage of harvest areas that do not exceed the soil disturbance prescriptions.

Target (3.1) 2b.2.1:	**Acceptable variance:**
100% of harvest areas do not exceed the soil disturbance prescriptions annually.	≥90% of the harvest areas does not exceed the soil disturbance prescriptions.

Status: **Does not meet**

Soil disturbance prescriptions are developed during the planning phase. When harvest areas and roads are located in the field, the area planned for roads within the harvest area is determined and documented in the Final Harvest Plan (FHP). Once harvesting is complete, the actual area disturbed by roads is determined and compared to the FHP prescription.

For the 2008 timber year, 67% of harvest areas did not exceed the soil disturbance prescriptions. This equates to 52 of the 78 cutblocks harvested. Although this does not meet the target, in perspective, the sum of all road areas exceeding the soil disturbance prescription amounts to 7.2 hectares which is relatively small compared to the total area harvested of 907.5 hectares. Table 21 demonstrates that of the 26 cutblocks that exceeded, 25 of the cutblocks were less than or equal to 0.5% area disturbance. The overall soil disturbance will be mitigated through implementation of prompt reforestation practices on block roads as indicated in target *"(2.2) 1a.2 100% of temporary "in block" roads used for extraction of timber will be reforested within 18 months after the end of the timber year of harvest*."

The reasons for the variance included changes to block area or constructing additional roads to address operational issues.

Table 21. Soil Disturbance Prescriptions Compared to Actual

		Road Area			Road Allowance		
Block ID	Harvested Area (ha)	Planned (ha)	Actual (ha)	Variance (ha)	Planned (%)	Actual (%)	Variance (%)
W732239	109.0	1.8	4.1	2.3	1.5	3.2	1.7
S181003	27.4	0.4	0.9	0.5	1.6	3.3	1.7
G343422	101.4	3.7	4.2	0.5	3.6	4.2	0.6
S181624	25.5	0.7	1.1	0.4	2.7	4.3	1.6
G310362	17.3	0.5	0.8	0.3	3.6	5.2	1.6
G310311	37.6	1.5	1.8	0.3	4.1	4.9	0.8
G342875	12.8	0.3	0.6	0.3	2.0	4.3	2.3
R453548	34.9	1.9	2.1	0.2	5.5	6.0	0.5
S181801	3.8	0.1	0.3	0.2	2.7	7.2	4.5
S031302	18.7	1.3	1.5	0.2	5.9	6.5	0.6
R463028	24.9	1.0	1.2	0.2	5.4	6.4	1.0
G310234	22.8	1.1	1.3	0.2	4.6	5.2	0.6
R463172	63.4	2.6	2.8	0.2	4.0	4.3	0.3
R463075	83.0	3.1	3.3	0.2	3.7	3.9	0.2
S180476	21.2	2.9	3.0	0.1	4.0	4.2	0.2
S040537	20.4	0.7	0.8	0.1	3.6	3.9	0.3
S031496	71.6	1.0	1.1	0.1	4.8	5.3	0.5
G343407	37.0	1.4	1.5	0.1	3.9	4.1	0.2
G343365	48.2	1.9	2.0	0.1	4.0	4.1	0.1
S031339	13.3	0.3	0.4	0.1	2.3	2.8	0.5
S040508	10.2	0.6	0.7	0.1	4.9	5.7	0.8
R453593	12.1	0.6	0.7	0.1	6.7	7.3	0.6
G310338	9.5	0.4	0.5	0.1	3.8	4.8	1.0
S180136	30.8	1.1	1.2	0.1	4.1	4.1	0.0
G343607	22.6	1.1	1.2	0.1	4.9	5.1	0.2
G342817	27.9	1.1	1.2	0.1	3.6	3.9	0.3
Total	**907.5**			**7.2**			

Critical Element (3.2): Water Quality and Quantity

Conserve water resources by maintaining water quality and quantity.

Value (3.2) 1: Water Quality.
Objective (3.2) 1a: Water quality will be conserved.
Indicator (3.2) 1a.1: The percentage of surveyed stream crossings identified with "High" and "Very High" WQCR[13] (Water Quality Concern Rating) on forestry roads for which the participants are responsible.

Target (3.2) 1a.1.1:	**Acceptable variance:**
Less than 10% of surveyed stream crossings on forestry roads will have a "High" and "Very High" WQCR annually.	For 2009 < 17.5 % in the 'High' or 'Very High' category;

Status: Does not meet

The timeline below indicates the WQCR targets that have been established between 2005 and 2015 when the overall target is to be achieved:

- 2007 <20% in the 'High' or 'Very High' category
- 2009 <17.5% in the 'High' or 'Very High' category
- 2011 <15% in the 'High' or 'Very High' category
- 2013 <12.5% in the 'High' or 'Very High' category
- 2015 <10% in the 'High' or 'Very High' category

Financial constraints limited the number of crossings that Canfor remediated in 2009. There was limited progress toward meeting the 2009 targets.

Table 22 details the baseline data from the WQCR sampling that occurred on the FMA between 2003-2005 as well as updates the High and Very High percentages for 2009.

Table 22. Summary of 2003-2005 WQCR Results in the FMA Area (Baseline Data) and 2009 Results

Operational Unit	# of Crossings Surveyed	Water Quality Concern Rating (WQCR) BASELINE												2009 Results	
		None		Low		Moderate		High		Very High		Combined High+V.High		Combined High+V.High	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Deep North	180	46	26%	99	55%	15	8%	15	8%	5	3%	20	11%	20	11%
Deep South	45	9	20%	22	49%	5	11%	7	16%	2	4%	9	20%	9	20%
E8	92	20	22%	34	37%	11	12%	10	11%	17	18%	27	29%	23	25%
Economy North	24	5	21%	0	0%	0	0%	7	29%	12	50%	19	79%	19	79%
Economy South	39	1	3%	7	18%	8	21%	9	23%	14	36%	23	59%	23	59%
Latornell	64	6	9%	18	28%	14	22%	14	22%	12	19%	26	41%	21	33%
Puskwaskau	8	1	13%	0	0%	1	13%	2	25%	4	50%	6	75%	6	75%
Simonette	45	17	38%	19	42%	5	11%	2	4%	2	4%	4	9%	4	9%
Smoky	183	49	27%	72	39%	25	14%	16	9%	21	11%	37	20%	37	20%
TOTALS	680	154	23%	271	40%	84	12%	82	12%	89	13%	171	25%	162	24%

[13] WQCR: Water Quality Concern Rating. The WQCR is a 5-class hazard rating which indicates the level of concern for negative impacts on water quality arising from increased sediment delivery to the stream. The ratings are "none", "low", "medium", "high" and "very high". The ratings are converted from individual SCQI crossing scores. The WQCR identifies areas where crossing elements have the potential to cause sedimentation and also documents areas where effective erosion and sediment control is practiced (P. Beaudry).

Between 2005 and 2009, 23 crossings received remediation, which resulted in 15 crossings being removed from the High or Very High categories. The remaining crossings improved their individual scores, but not enough to drop below the High category ranking. Further improvement at several crossings is likely to occur with additional time to allow re-vegetation of bare soil areas.

The research of the WQCR project indicated the road surface is a significant sediment source at crossings. Non-erodible material (gravel with no fines) was applied to the road surfaces at over 40 crossings across the FMA in 2009. The application of the gravel reduced the surface area of erodible material at the crossings, and therefore reduced the sediment source. While this was a marked improvement at many sites, few locations would have dropped from the high or very high WQCR categories. Monitoring and reassessment is planned for 2010.

Other erosion control work on the College Camp Road was similarly significant, but the crossings will remain at the high WQCR level until vegetation is fully established. Monitoring and reassessment is planned for 2010.

Canfor is also pursuing partnership opportunities to jointly remediate crossings.

Indicator (3.2) 1a.2: The percentage of crossings that receive the required remedial action.

Target (3.2) 1a.2.1:	**Acceptable variance:**
100% of crossings receive remedial action as identified in the Road Management Plan annually.	Minimum of 90% of crossings receive remedial action.

Status: **Does not meet**

Crossing Maintenance activities include:

- Install, repair, replace, cleaning, add riprap, substructure repairs, and assessment for erosion / sediment control.

Table 23 details the number of completed activities in 2009. Several crossing maintenance projects were delayed or rescheduled in 2009. These are planned for completion in 2010.

Table 23. Crossing Remedial Actions Planned and Completed in 2009

Maintenance Activity	Number Planned	Number Completed	Percentage Completed	Comment
Crossing Maintenance	53	23	43%	*The Road Management Plan timing is May 1-April 30, therefore currently only partially through the reporting period. Additional works will be finished prior to May 1, 2010. Currently 23/53 are completed

Indicator (3.2) 1a.3: The number of non-compliance incidents related to riparian zone standards.

Target (3.2) 1a.3.1:	**Acceptable variance:**
Zero non-compliance incidents related to riparian zone standards annually.	Zero

Status: **Does Not Meet**

There was one noncompliance relating to riparian zone standards in 2009. Harvest unit W732239 had one creek (100 m in length) misclassified as an ephemeral stream that should have been classified as a transitional stream. Transitional streams require a 10 m buffer. ASRD determined that there were no long term impacts to the stream, as equipment did not enter the channel. The second part to this noncompliance involved road crossings where unacceptable amounts of soil and tree branches were found within or adjacent to a stream channel. The sites have been remediated to the satisfaction of ASRD.

Value (3.2) 2: Water Quantity.
Objective (3.2) 2a: Water quantity will be maintained.
Indicator (3.2) 2a.1: Percentage of sampled watersheds that are in conformance with the average water yield increase limit indicated in *Canfor FMA 9900037 Operating Ground Rules* (ASRD, 2008).

Target (3.2) 2a.1.1:	**Acceptable variance:**
100% of sampled watersheds are in conformance with the annual average water yield increase limit of 15% as indicated in the Operating Ground Rules.	Total forest cover removal within a defined watershed will not cause an increase in annual average water yield of greater than 20% for a minimum of 10 of the highest Equivalent Clearcut Area (ECA) watersheds in the FMA area.

Status: Meets

Water yield percentages have been calculated using areas harvested as of the end of the 2008 timber year for the ten watersheds with the highest ECA percentages. Results shown in Table 24 indicate there were no water yield increases above 15 percent in these watersheds.

Table 24. Average Water Yield Increase (%) for the 10 Highest ECA Watersheds

Sampled Watershed	2008 Timber Year (10 Highest ECA %)	Average Water Yield Increase (%)
3523	22%	5%
4877	23%	7%
1775	14%	2%
670	29%	11%
462	30%	14%
10003	26%	8%
2057	14%	4%
4826	14%	3%
6306	22%	8%
1846	10%	2%

6. Criterion 4: Forest Ecosystem Contributions to Global and Ecological Cycles

Maintain forest conditions and management activities that contribute to the health of global ecological cycles.

Critical Element (4.1): Carbon Uptake and Storage

Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.

Value (4.1) 1: Local contribution of carbon uptake and storage.
Objective (4.1) 1a: Carbon uptake and storage (i.e. carbon balance) will be maintained.
Indicator (4.1) 1a.1: Percentage of harvested areas reforested.

Target (4.1) 1a.1.1:	**Acceptable variance:**
100% of harvest areas are reforested within 18 months after the end of the timber year in which it was harvested.	+3 months.

Status: Meets

All areas harvested during the 2007 timber year were planted within 18 months of harvest.

Table 25. Harvested Areas Reforested Within 18 Months

Timber Year	# of Harvest Areas	# of Harvest Areas Reforested Within 18 Months	Percentage Reforested Within 18 Months
2002	127	127	100%
2003	126	126	100%
2004	83	76	92%
2005	100	100	100%
2006	32	32	100%
2007	67	67	100%

Indicator (4.1) 1a.2: Percentage of productive areas > 4 hectares impacted by fires that are regenerated.

Target (4.1) 1a.2.1:	**Acceptable variance:**
Reforest 100% of the productive areas > 4 hectares impacted by fire within 24 months.	Reforest at least 90% of productive areas > 4 hectares impacted by fire within 24 months.

Status: **Meets**

There were no fires greater than 4 hectares on the FMA in 2009.

During 2008, one fire 55 ha in size (GWF-095-2008) occurred on Canfor's FMA. Of the area burned, less than 2 ha were suitable for planting. This area was planted in 2009.

The majority of the burned area (339 hectares) in Fire GWF-139-2006 that occurred in 2006 was planted in 2007. In 2009, an assessment of the remaining 78 hectares showed that some of the area was regenerating naturally, whereas some of the area was just too wet to support tree growth.

Critical Element (4.2): Forest Land Conversion

Protect forestlands from deforestation or conversion to non-forests.

Value (4.2) 1: Sustainable yield of timber.
Objective (4.2) 1a: A natural range of tree species will reforest every hectare that is harvested.
Indicator (4.2) 1a.1: Percentage of the harvested area sufficiently restocked by yield group.

Target (4.2) 1a.1.1:	**Acceptable variance:**
100% of the harvested area sufficiently restocked by yield group accumulated annually beginning in 2000.	+/- 10% of harvested areas (accumulated annually) will be sufficiently restocked by yield group.

Status: **Does not meet**

Canfor made a commitment within the DFMP to compare planned versus actual reforestation by yield group accumulated annually, beginning in 2000. Table 26 represents regeneration data for applicable yield groups for the period 2000 to 2009, inclusive. Of the 9 yield groups listed; yield groups 2, 8, 9, 11 and 12 are within the acceptable variance of 10 percent, and yield groups 3, 14, 16 and 17 do not meet the acceptable variance. As compared to last year, yield group 11 went from does not meet to meets.

The SBPL/SBSW yield group (14) continues to be challenging as black spruce is typically planted on the lower, wetter sites as a separate unit. Black spruce will grow mixed with pine or spruce, but planting is generally done on a site-specific basis. As more area is harvested and regenerated in each yield group, the variance percentages will decline. Silviculture staff will continue to work on strategies to align yield groups within acceptable variances.

The division's emphasis on the harvesting of lodgepole pine dominated stands under the Healthy Pine Strategy will delay implementation of strategies to correct imbalances in yield groups 3, 16 and 17.

Table 26. Balancing Yield Groups within FMA Area

	2 AW	3 AWSW	8 PL	9 PLAW/AWPL	11 PLSW/SWPL	12 SB	14 SBPL or SBSW	16 SW	17 SWAW	TOTAL
Regenerated Yield Group (AVI) Ha	2641	1236	7093	663	1360	1562	1078	6047	2483	**24163**
Treated Regenerated Yield Group Ha	2716	859	7259	658	1266	1669	414	7205	2117	**24163**
Percent Difference	3%	**-31%**	2%	-1%	-7%	7%	**-62%**	**19%**	**-15%**	**0%**

Objective (4.2) 1b: The utilization of merchantable wood will be maximized.
Indicator (4.2) 1b.1: Percentage of harvested merchantable wood (conifer and deciduous) left on site.

Target (4.2) 1b.1.1:	**Acceptable variance:**
To leave less than 1% conifer and 1% deciduous harvested merchantable wood on site annually.	Zero

Status: **Assessment postponed**

As reported in the 2008 APMR, an assessment of the amount of material left in the bush will be postponed to 2010.

For the 2008 timber year, ASRD approved a utilization variance from that approved in the Detailed Forest Management Plan (15/10). The variance allowed Canfor to cut to a 15/11 standard. This refers to a tree that is 15 centimeters at the stump end and 11 centimeters at the top. The approval requires Canfor to report on the merchantable material that is left in the field, due to the changed utilization standard, through a timber supply modeling exercise. This volume is reported to ASRD as part of Canfor's cut control (timber drain) and Canfor pays timber dues on this calculated volume. Previous surveys have indicated that Canfor's waste (over and above the utilization standard that is accounted for in the above calculation) is less than 1% merchantable volume. Since harvesting practices have not changed, it is reasonable to assume that the waste levels should remain similar.

Indicator (4.2) 1b.2: Percentage of dispositions where merchantable industrial salvage (m^3) is utilized on an annual basis.

Target (4.2) 1b.2.1:	**Acceptable variance:**
100% of the dispositions where merchantable industrial salvage wood from permanent land withdrawals is utilized on an annual basis.	At least 90% of dispositions where merchantable volume is harvested as a result of permanent land withdrawals.

Status: **Meets**

Coniferous Salvage Wood

Each request from industrial users for land withdrawal received by Canfor is reviewed and, if approved, a Coniferous Timber Salvage Commitment form is signed for each disposition that is withdrawn. Disposition holders must notify Canfor when salvaged timber is ready to haul. The *Logs Production Module* of Canfor's forestry system and an Access database are used to track a number of salvage components to ensure that all available coniferous salvage wood is hauled to the mill site. As shown in Table 27, 100% of the merchantable coniferous industrial salvage reported to Canfor in 2008 timber year was hauled to the mill site.

Deciduous Salvage Wood

Deciduous salvage wood within Canfor's FMA area has been allocated by ASRD to Ainsworth Engineered Ltd., and Tolko Industries. At this time, Tolko's High Prairie mill is closed and is not accepting deliveries of deciduous salvage wood. Tolko has authorized Canfor to sign Deciduous Timber Salvage Commitment waivers on Tolko's behalf. In an effort to ensure full utilization of deciduous salvage wood within Canfor's FMA area, Canfor advises each industrial operator that Ainsworth Lumber is willing to purchase the salvage located in Tolko's operating area. For the 2008 timber year, Ainsworth reported deciduous salvage volume delivered to the OSB plant as 5,299 m^3; 2,442 m^3 from Ainsworth's and 2,857 m^3 from Tolko's deciduous allocation areas.

Table 27. Coniferous Merchantable Industrial Salvage Wood

Timber Year	2003	2004	2005	2006	2007	2008
# of Dispositions Coniferous Salvage Available	73	59	92	101	93	80
# of Dispositions Coniferous Salvaged	68	57	88	101	93	80
Amount of Coniferous Salvage Wood (m^3)	11,803	10,764	21,405	17,986	22,110	16,043
Percent of # Dispositions where Salvage Available Delivered to Mill	**93%**	**97%**	**96%**	**100%**	**100%**	**100%**

Value (4.2) 2: Forests on the landbase.
Objective (4.2) 2a: Forests will be maintained on the landbase.
Indicator (4.2) 2a.1: Density (lineal km/km^2) of open (non-reclaimed) roads.

Target (4.2) 2a.1.1:	**Acceptable variance:**
To have no more than 0.6 lineal km/km^2 in open (non-reclaimed) roads over a 5-year period, for each FMA parcel (Peace, Puskwaskau, and Main).	Maximum of 0.7 km/ km^2 for the Peace, Puskwaskau and Main parcels.

Status: Meets

There was minor increases in road densisty in Puskwaskau of 0.02 km/km^2 and the Peace of 0.01 km/km^2 of open roads in 2009. All road densities reported in the figures 11-14 are below the acceptable variance. The Peace area is above the target as the majority of the roads are used for oil and gas exploration. Collaboration with individual oil and gas companies on future road development is continuing to minimize the amount of new road constructed and increase the rehabilitation of abandoned roads that are not required for future access. An example of this is the development of a *Berland Smoky Integrated Access Plan* by the Foothills Landscape Management Forum (FLMF) whose membership includes both forestry and energy sector members. The Berland Smoky plan identifies existing and future main road corridors and prescribes deactivation and reclamation requirements for all temporary access. This plan was endorsed by ASRD on June 23, 2006, followed by distribution of an information letter on July 11, 2008. A second phase of the project that FLMF are working on in conjunction with the government is a secondary road access plan. The main purpose of this plan and the one previous is to monitour and maintain or reduce the road access footprint.

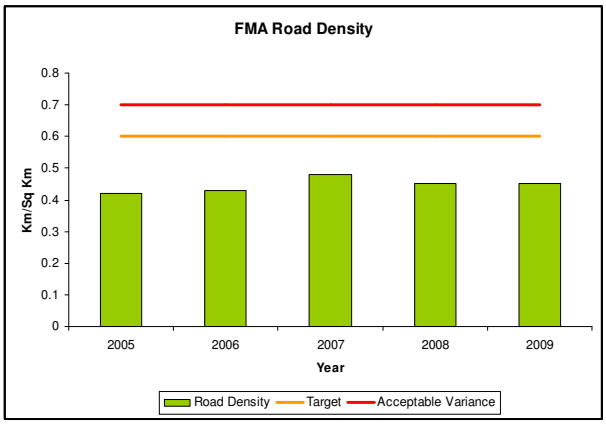

Figure 11. Road Densities within the FMA

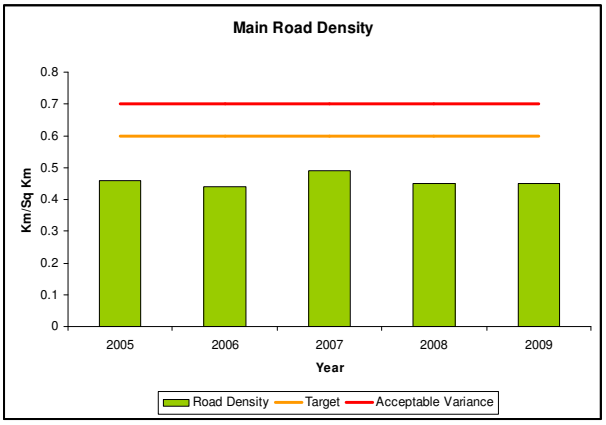

Figure 12. Road Densities within the Main

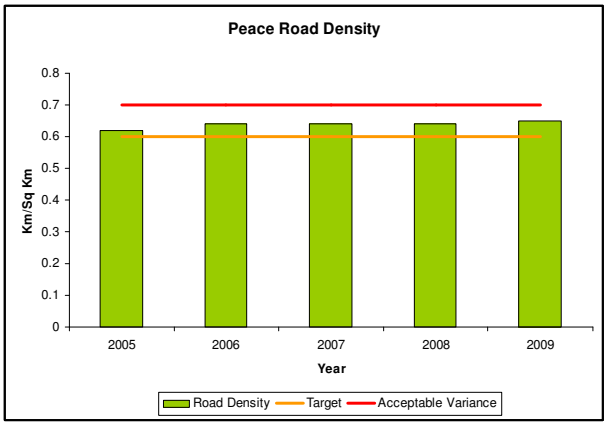

Figure 13. Road Densities within the Peace

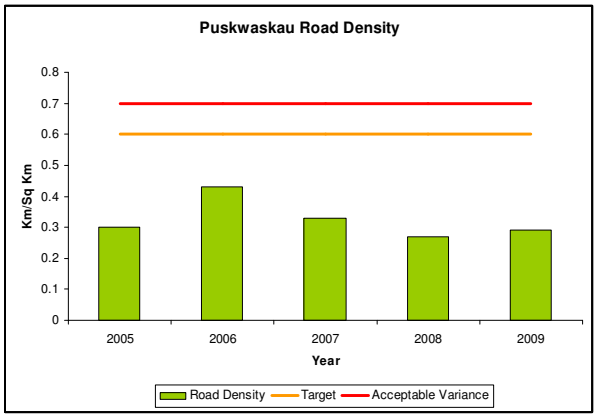

Figure 14. Road Densities within the Puskwaskau

Objective (4.2) 2b: Productive lands will be restored to productive status wherever possible.
Indicator (4.2) 2b.1: Percentage of withdrawn areas restored to productive forestland.

Target (4.2) 2b.1.1:	**Acceptable variance:**
100% of previously withdrawn areas that are suitable candidates for reforestation are restored to productive forestland within 24 months.	No less than 90% of suitable candidates reforested within 24 months of when the site is ready for planting.

Status: Meets

Canfor is working with the energy sector to develop procedures for reclaiming sites in preparation for tree planting. One component of the process will include identification of prescribed time frames for notification of Canfor when a site is ready for treatment.

Table 28 indicates withdrawn areas that have been planted since 2005. In 2009 all areas were assessed for planting suitability, five sites that were withdrawn in previous years were all determined to be not suitable for planting. Only one new area was reported in 2009 and it was deemed suitable for reforestation and it was planted.

Table 28. Planting of Previously Withdrawn Areas

Year	# of Withdrawn Suitable Areas Available	# of Withdrawn Areas Planted Within 24 Months	# of Withdrawn Areas Planted After 24 Months	% of Withdrawn Areas Planted Within 24 Months	Total % of Withdrawn Areas Planted
2005	8	2	3	25%	63%
2006	16	11	2	69%	81%
2007	3	0	0	0%	0%
2008	9	2	2	22%	44%
2009	1	1	0	100%	100%

7. Criterion 5: Multiple Benefits to Society

Sustain flows of forest benefits for current and future generations by providing multiple goods and services.

Critical Element (5.1) Timber and Non-Timber Benefits

Manage the forest to produce an acceptable and feasible mix of both timber and non-timber benefits.

Value (5.1) 1: Sustainable yield of timber.
Objective (5.1) 1a: Sustainable harvest levels on the FMA area will be maintained.
Indicator (5.1) 1a.1: Long-term harvest levels vs. actual extraction (m^3).

Target (5.1) 1a.1.1:	**Acceptable variance:**
Actual extraction rates (m^3) are less than or equal to the long-term harvest level (m^3) at the end of the 1999-2008 period.	Zero.

Status: Meets

The 2008 timber year was the balancing year for the 10 year quadrant on harvest levels. Tables 29 and 30 demonstrate that the actual coniferous and deciduous timber volumes harvested on the FMA area were below the approved long-term harvest levels (AAC).

2009 timber year will be the start of a new quadrant along with a new long term harvest level for both coniferous and deciduous species.

Canfor will be recommending a change in this target to the FMAC in 2010 to reflect the new quadrant 2009-2013.

Table 29. Coniferous Harvest Levels

Timber Year	Harvested (m^3)*	Long-Term Harvest Level (m^3)	Variance (m^3)	Variance (%)
1999	555,038	640,000	-84,962	-13%
2000	644,861	640,000	4,861	1%
2001	579,200	640,000	-60,800	-10%
2002	626,525	640,000	-13,475	-2%
2003	658,898	640,000	18,898	3%
2004	465,950	640,000	-174,050	-27%
2005*	817,405	640,000	177,405	28%
2006*	575,881	640,000	-64,119	-10%
2007	600,839	640,000	-39,161	-6%
2008	562,758	640,000	-77,242	-12%
Total	**6,087,355**	**6,400,000**	**-312,645**	**-5%**

* The harvested volumes for 2005 - 2007 have been reconciled based on a government audit (TPRS). In addition, local LTP volumes harvested required adjustment from 1999 onward. This is reflected in the revised harvested volumes for the entire table.

Table 30. Deciduous Harvest Levels

Timber Year	Harvested (m^3)**	Long-Term Harvest Level (m^3)*	Variance (m^3)	Variance (%)
1999	151,072	226,312	-75,240	-33%
2000	230,148	226,312	3,836	2%
2001	179,797	226,312	-46,515	-21%
2002	159,916	226,312	-66,396	-29%
2003	145,399	226,312	-80,913	-36%
2004	228,629	226,312	2,317	1%
2005*	172,117	226,312	-54,195	-24%
2006*	188,008	453,712	-265,704	-59%
2007	213,017	453,712	-240,695	-53%
2008	244,630	453,712	-209,082	-46%
Total	**1,912,733**	**2,945,320**	**-1,032,587**	**-35%**

*** The harvested volumes for 2005-2008 were reconciled based on a government audit (TPRS). In addition, local LTP volumes harvested required adjustment from 1999 onward. This is reflected in the revised harvested volumes for the entire table. The 2007 GPD did not catch the LTP adjustment, therefore this table differs from the GDP in that regard.*

**Although the long term harvest levels for deciduous are approved in the DFMP at 453,712 m^3, the ASRD finalized deciduous allocations are reported to date showing the deciduous long-term harvest level as 226,312 m^3 until 2006/07 Timber Year (2006) when the Ainsworth Allocation became effective.*

Value (5.1) 2: Ongoing non-timber benefits.
Objective (5.1) 2a: Long-term availability of identified non-timber benefits will be maintained.
Indicator (5.1) 2a.1: Number of recreation areas maintained by Canfor.

Target (5.1) 2a.1.1:	**Acceptable variance:**
Canfor will maintain a minimum of 5 recreation areas for use by the public annually.	Zero.

Status: Meets

Canfor maintains recreational areas (Figure 15) in both its Grande Prairie and Hines Creek operations. Canfor Grande Prairie maintains 4 public recreational areas within the FMA area, and 1 site outside the FMA area, located approximately 25 km west of Valleyview:

- MacLeod Flats (formerly Smoky Flats);
- Economy Lake;
- Frying Pan Creek;
- Westview; and
- Swan Lake (outside FMA area).

A typical site includes camping stalls, picnic tables, firewood, garbage receptacles and pit toilets. MacLeod Flats and Economy Lake also have well water, which must be boiled before using. All camping sites and firewood are currently provided free of charge.

Stoney Lake Campsite is located in Canfor's quota area northeast of Hines Creek. This recreation area has 28 overnight sites, a boat launch area, day use area, toilets, and non-potable water supply. An agreement was signed in 2006 with Alberta Community Development, currently called Alberta Tourism, Parks, Recreation and Culture (ATPRC), whereby Canfor continues its financial contribution and ATPRC manages the Stoney Lake site to Provincial Recreation Area standards. This agreement continued in 2009 with good results as there were several positive comments regarding the site.

The agreement signed in July 2007 to cooperatively fund, manage and operate the Swan Lake Recreation Area between Canfor, Alberta Sustainable Resource Development (ASRD) and ATPRC ended in May 2009. The agreement provided interim management while all three parties and other interested stakeholders worked towards protected area status for the lands in the immediate vicinity of Swan Lake. For the remainder of the year, Swan Lake was periodically maintained by ASRD and Canfor. Discussion between all three parties is ongoing to determine the best approach for this site going forward.

In order to promote public use of its sponsored recreation areas, Canfor Grande Prairie Division publishes a pamphlet titled, *Canfor Public Recreation Areas* that is available through the Grande Prairie Tourism Association, Muskoseepi Park and Canfor's Grande Prairie Administration Office.

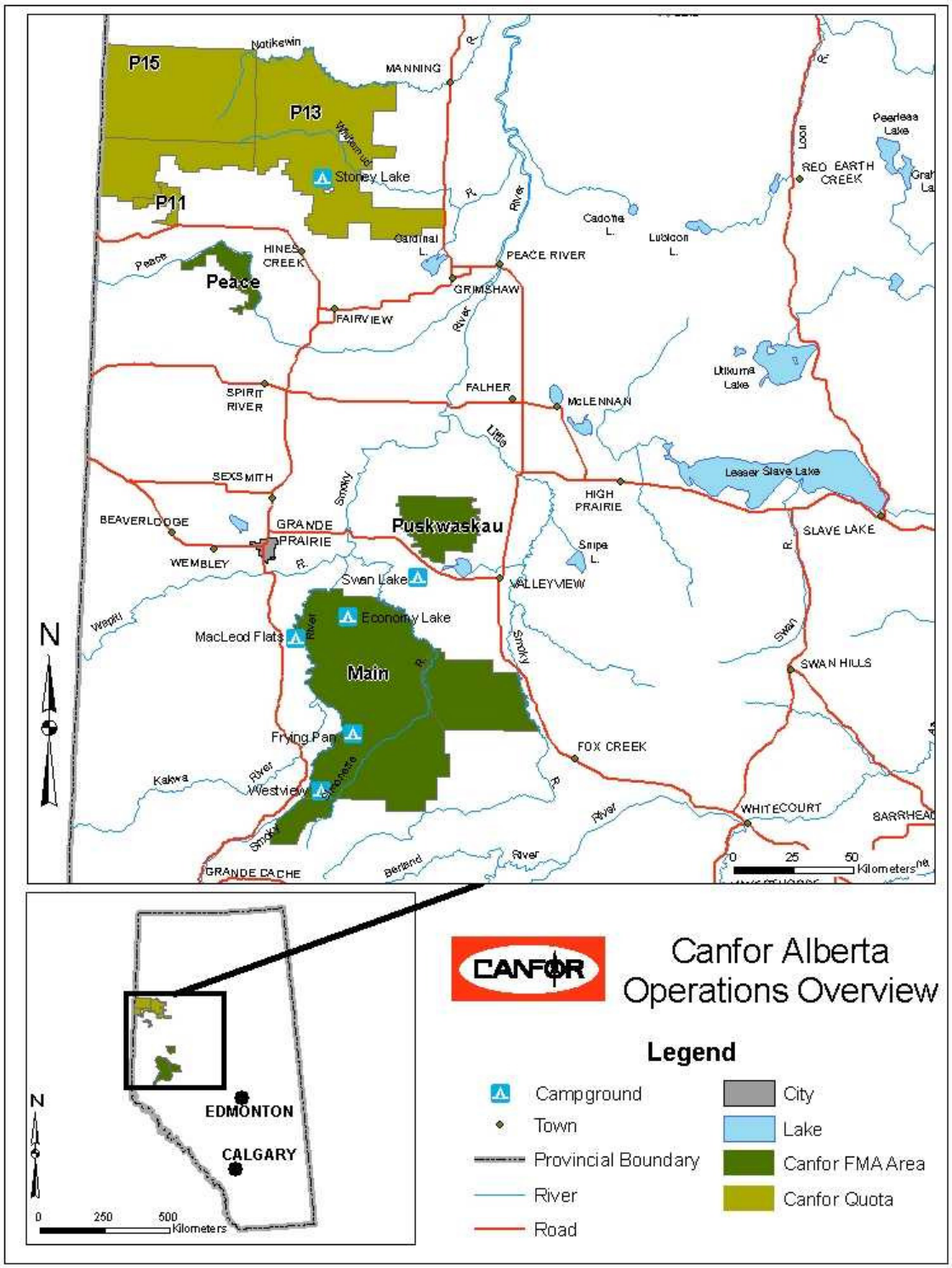

Figure 15. Location of Recreation Areas Managed by Canfor

In 2009 Canfor continued with a fourth year of financial support for the maintenance and operation of nine (9) recreation areas in the greater Hines Creek/Fairview/Worsley area under agreements with Clear Hills County, Municipal District of Fairview and the Town of Fairview. The recreation areas and their facilities are listed in Table 31 below and a map showing their locations is included in Figure 16.

Table 31. Recreation Areas and Facilities

Authority	Recreation Area	RV Pull Through	Trailer Sites	Campsites	Tenting	Toilets	Cookhouse	Picnic Tables	Playground	Fire Pits	Firewood	Canoe/ Boat	Boat Launch	Fishing	Fish Cleaning Stn.	Swimming	Hiking Trails
Clear Hills County	Ole Lake		Y		Y	Y			Y	Y	Y	Y	Y	Y		Y	
	Many Islands	Y	Y		Y			Y	Y			Y	Y	Y			
	Running Lake		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
	Carter's Camp		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y
	Clear River		Y	Y	Y	Y	Y	Y	Y	Y	Y			Y			Y
	George Lake	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y
Municipal District of Fairview	Maples Park					Y	Y	Y	Y	Y	Y						Y
	Pratt's Landing		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
Town of Fairview	Cummings Lake	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y		Y

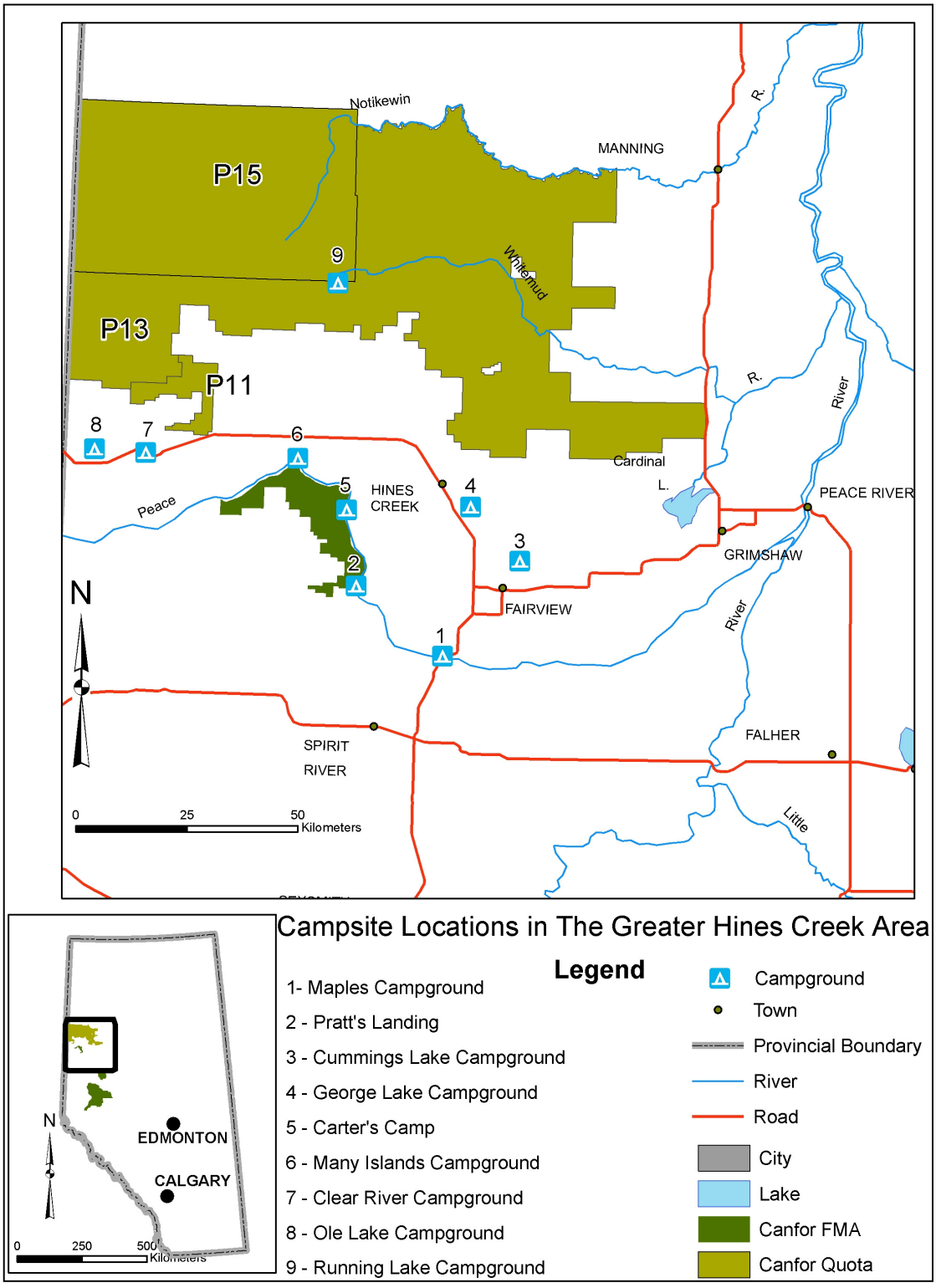

Figure 16. Map of campsite locations in the greater Hines Creek Area

Indicator (5.1) 2a.2: Percentage of registered trappers contacted that are directly impacted by operations (harvesting, silviculture, and reclamation).

Target (5.1) 2a.2.1:	**Acceptable variance:**
100% of registered trappers directly impacted by harvesting, siliviculture, and reclamation operations are contacted as specified in the *Trappers Consultation and Notification Program* annually.	Zero, provided that Canfor and registered trappers make reasonable provisions that allow effective consultation and/ or notification.

Status: Meets

The *Trappers Consultation and Notification Program* (Canfor, 2009 revision) provides direction to Canfor supervisors regarding consultation with aboriginal and non-aboriginal trappers and notification of registered trapline holders.

In the 2008 timber year, 100% of known trappers who were potentially impacted by Canfor activities were consulted during the planning stage. During that time, harvesting and reclamation activities occurred within the boundaries of eight registered traplines, while silviculture activities occurred within the boundaries of 29 registered traplines. (Table 32) The senior license holders for these areas were notified by mail.

Table 32. Harvesting Trapper Notification

Area	# of Trappers Impacted	Trapper Notifications less than 30 Days	Success Rate
Harvesting	8	8	**100%**
Silviculture	29	29	**100%**

Indicator (5.1) 2a.3: Percentage of outfitters potentially affected by operations within the FMA area are informed of the 5-year harvest sequence.

Target (5.1) 2a.3.1:	**Acceptable variance:**
100% of outfitters potentially affected by operations within the FMA area will be supplied a 5-year General Development Plan map annually.	Zero

Status: Meets

All outfitters with licensed territories within the FMA area were mailed a 5 year General Development Plan map in December of 2009. Canfor did not receive any requests or other feedback from those outfitters contacted.

Critical Element (5.2): Communities and Sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and to participate in their use and management.

Value (5.2) 1: A range of benefits to local communities.
Objective (5.2) 1a: Local communities and contractors will have the opportunity to share in benefits such as jobs, contracts and services.
Indicator (5.2) 1a.1: Percentage of dollars paid for local vs. non-local contract services.

Target (5.2) 1a.1.1:	**Acceptable variance:**
Over a rolling 5-year period, a minimum of 75% of dollars paid for contract services will be expended locally.	Zero.

Status: **Meets**

Table 33 indicates the local versus non-local contract service dollars expended by Grande Prairie Division since 2005. During the five year period from 2005 to 2009, 87 percent of the dollars paid by Grande Prairie Division for contract services was expended locally. This represents a one percent increase from the previous five year period.

Table 33. Local Versus Non-local Contract Services Expenditures

Contribution	2005	2006	2007	2008	2009
Local Contract Services ($ millions)	38.1	53.7	31.2	34.4	31.3
Non-Local Contract Services ($ millions)	7.3	6.6	5.9	5.9	3.4
subtotal	45.4	60.3	37.1	40.2	34.7
% Local Contractors (5 year rolling avg.)		**87%**	**86%**	**86%**	**87%**

Objective (5.2) 1b: The forests will be accessible to the public for social and cultural benefits.
Indicator (5.2) 1b.1: Percentage of identified social and cultural benefits that occur in the FMA area.

Target (5.2) 1b.1.1:	**Acceptable variance:**
Maintain 100% of identified social and cultural benefits that occur on the FMA area annually.	Zero.

Status: **Meets**

On January 18th, 2006 Canfor's Forest Management Advisory Committee reviewed a list of identified social and cultural benefits prepared by Canfor and provided additional information to the company. In 2009, the social and cultural benefits indicated in Table 34 were available and accessible by the public.

Canfor does not restrict public access within the FMA area with the exception of areas where ASRD applies legal restrictions; for example - ASRD restricts vehicle traffic on some roads by requiring the installation and maintenance of gates as a means of protecting caribou and grizzly bear populations.

Table 34. Social and Cultural Benefits Identified in the FMA Area

Benefit	Availability of Benefit in 2009
Recreational	
Hunting/fishing	X
Camping/picnicking/social gathering	X
ATV'ing/snowmobiling	X
Walking/hiking/jogging/mountain biking/skiing	X
Horseback/trail riding	X
Boating/canoeing/kayaking/rafting	X
Sight seeing/wildlife watching/nature watching	X
Nature photography/painting	X
Berry picking/plant and rock collecting	X
Firewood/poles/other wood collecting	X
Non-recreational	
Trapping/outfitting/guiding	X
Working	X
Studying/researching	X
Small business timber harvesting	X
Cultural (includes Aboriginal)	
Traditional hunting/fishing/trapping/gathering	X
Traditional plants	X
Spiritual gatherings/activities	X
Teepee poles	X
Percent Available	**100%**

Critical Element (5.3): Fair Distribution of Benefits and Costs

Promote the fair distribution of timber and non-timber benefits and costs.

Value (5.3) 1: Fair distribution of benefits and costs will be ensured across communities.
Objective (5.3) 1a: A fair distribution of benefits and costs will be ensured across all communities and contractors in the local area.
Indicator (5.3) 1a.1: Percentage of economic contributions to local communities.

Target (5.3) 1a.1.1:	**Acceptable variance:**
Annual economic contributions to local communities will be a minimum of 80% of the 5-year rolling average.	Zero

Status: **Meets**

Canfor contributes to the local economy in the form of wages and benefits, property taxes, contract services, purchases of goods and services, and community donations. In 2009, Canfor's contribution to local communities was $53.9 million. Table 35 indicates this represents 88 percent of the 5 year rolling average (2005-2009). The percentage is slightly less than the previous year. As in 2007, Grande Prairie Division reduced mill operating and woodlands costs significantly in response to record low lumber prices, the rise (then fall) of the Canadian dollar, dramatically decreasing North American housing starts, and a 15 percent export tax imposed under the US/Canada Softwood Lumber Agreement. In addition, implementation of the Healthy Pine Strategy and, in particular, increased

harvesting of lodgepole pine stands, has resulted in reduced harvesting and silviculture costs, most of which is expended locally.

Table 35. Contributions to Local Communities

Contribution (millions $)	2002	2003	2004	2005	2006	2007	2008	2009
Wages and Benefits	13.5	14.6	14.7	15.0	15.8	15.5	14.3	16.3
Property Taxes	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0
Local Contract Services	29	34.6	36.9	38.1	53.7	31.2	34.4	31.3
Supplies	4.4	5.5	6	6.4	6.6	6	5.7	5.3
Community Donations	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Total	47.8	55.6	58.6	60.5	77.1	53.7	55.3	53.9
Local Contribution (5-Year Rolling Average)					59.92	61.1	61.0	60.1
% Within the 5-Year Rolling Average						**90%**	**90%**	**88%**

Indicator (5.3) 1a.2: Percentage of coniferous timber available for local use.

Target (5.3) 1a.2.1:	**Acceptable variance:**
0.5% of the coniferous AAC is made available for local use and for local residents as per FMA 9900037 annually.	Not to exceed the annual allocation of 0.5% of the approved coniferous AAC (640,000 m^3) over a 10-year cut control period (1999–2008), which equates to 3,152 m^3/ year or 31,520 m^3 for the 10 year period.

Status: **Meets**

In accordance with Section 8(2)(d) of the Forest Management Agreement (GOA, 1999), 0.5% of the AAC (3,152 m^3) is made available for *"local use in construction and maintenance of public works by any local authority, municipality, county, the Crown in the Right of Alberta or Canada and for local residents."* These programs are administered through ASRD and are subject to government regulation.

Canfor and ASRD work cooperatively to identify areas for this program. During the first few years of the cut control period, there was little demand from local loggers through ASRD, therefore, relatively small volumes were requested. The values depicted in Table 36 correspond to the year that that volume was permitted (issued) by ASRD. In addition, the volume permitted is not always the volume that is actually harvested. Due to the nature of the local timber permit system, local loggers report volume harvested to the crown when it is sawn and sold, which could be up to 5 years later.

Canfor was able to obtain more accurate reports for this indicator this year, by requesting volume permitted by year. This has resulted in adjusting the volume figures for the corresponding timber years from the previous ARMR reports.

To date 0.5% of the coniferous AAC has been utilized which is within the acceptable variance for this target.

The 10 year cut control period ended in the 2008 timber year. A new cut control period will start in the 2009 timber year.

Table 36. Volume of Permits issued within the FMA Area

Timber Year Issued	Volume (m3)
1999	300
2000	0
2001	80
2002	1400
2003	3,823
2004	5,538
2005	8,231
2006	7,550
2007	5,750
2008	1,600
Total	**34,272**
Average	3,427
% of AAC	0.5

Indicator (5.3) 1a.3: Volume of coniferous timber made available for local use.

Target (5.3) 1a.3.1:	**Acceptable variance:**
10,000 m^3 of the coniferous AAC is made available annually for Community Timber Use (CTU) program.	Not to exceed the total annual allocation of 10,000 m^3 in any given timber season.

Status: **Meets**

In accordance with Section 8(2)(e) of the FMA (Canfor, 1999), the Minister reserves the right to issue coniferous timber dispositions to provide up to 10,000 m^3 available for a Community Timber Use (CTU) Program. The 2004 harvest season was the first year that ASRD requested that the 10,000 cubic meter volume be made available. The proposed volumes for the CTU Program are included in Canfor's Annual Operating Plan.

Since 2004, the coniferous volumes in Table 37 have been made available, via competitive bid, to any interested party, typically local sawmillers/loggers or forest products companies. Due to quadrant balancing requirements, ASRD did not make CTU volume available for competitive bid in the 2008. timber year. For the 2009 timber year, CTU volume was not requested by ASRD due to poor market demand. An average of 9,377 m^3 per year has been delivered under the program during the 2004 to 2007 period.

Table 37. Local Use Coniferous Timber Volume Allocation by Timber Year

Operational Unit	2004 (m^3)	2005 (m^3)	2006 (m^3)	2007 (m^3)	2008 (m^3)	2009 (m^3)
Economy	8,066					
Latornell		7,496	9,798			
Smoky				12,150	0	0

8. Criterion 6: Accepting Society's Responsibility for Sustainable Development

Society's responsibility for sustainable forest management requires that fair, effective forest management decisions are made.

Critical Element (6.1): Aboriginal and Treaty Rights

Recognize and respect Aboriginal and treaty rights.

Value (6.1) 1: Understand and respect Aboriginal and treaty rights.
Objective (6.1) 1a: Infringement of Aboriginal and treaty rights will be avoided.
Indicator (6.1) 1a.1: Percent conformance to Sustainable Forest Management elements pertinent to the protection of aboriginal and treaty rights.

Target (6.1) 1a.1.1:	**Acceptable variance:**
100% conformance to SFMP targets of Element (1.2) Species Diversity and Element (3.2) Water Quality and Quantity annually.	80% conformance to the acceptable variances of SFMP targets related to species diversity, and water quality and quantity.

Status: Does not meet

Elements (1.2) and (3.2) include twelve targets related to the management of species diversity, water quality and water quantity. Maintenance and protection of those resources provides defacto protection for aboriginal and treaty rights.

Two of the twelve related targets had their assessments postponed until 2010. In one case, the decision to postpone the assessment was made because implementation of Canfor's Healthy Pine Strategy caused significant changes to the spatial harvest sequence, therefore necessitating a re-evaluation of the target, and in the other case the postponement was due to Canfor considering a change in the procedure to allow better analysis of the target and at the same time reduce the cost of collecting the information for the target.

Seven of the ten reported targets (70%) were met in 2009. Following is a summary of results:

- Critical Element (1.2) Species Diversity:
  - Target (1.2) 1a.1.1: Maintenance of habitat suitability rating
    - Results: Assessment postponed
  - Target (1.2) 1a.2.1: Management of Equivalent Clearcut Area (ECA) in bull trout watersheds
    - Results: Meets
  - Target (1.2) 1a.3.1: Management of forest seral condition in caribou habitat area and maintenance of buffers adjacent to trumpeter swan lakes
    - Results: Meets
  - Target (1.2) 1a.4.1: Rare plant identification training for Canfor staff
    - Results: Meets
  - Target (1.2) 1a.5.1: Participation in biodiversity monitoring program(s)
    - Results: Meets

- Target (1.2) 1a.6.1: Retention of coarse woody debris
  - Results: Assessment postponed
- Target (1.2) 1a.7.1: Establishment of planned watercourse buffers
  - Results: Meets
- Target (1.2) 1a.8.1: Management of structure retention
  - Results: Meets

➢ Critical Element (3.2) Water Quality and Quantity

- Target (3.2) 1a.1.1: Management of Water Quality Concern Rating on stream crossings
  - Results: Does not meet
- Target (3.2) 1a.2.1: Remedial action for stream crossings
  - Results: Does not meet
- Target (3.2) 1a.3.1: Compiance with riparian zones standards
  - Results: Does not meet
- Target (3.2) 2a.1.1: Conformance to water yield increase limits
  - Results: Meets

Critical Element (6.2): Respect for Aboriginal Forest Values, Knowledge, and Uses

Respect traditional Aboriginal forest values and uses identified through the Aboriginal consultation process.

Value (6.2) 1: Understand and respect treaty and Aboriginal special needs.
Objective (6.2) 1a: Early and effective consultation with Aboriginal peoples will be provided.
Indicator (6.2) 1a.1: Number of opportunities for early and effective consultation with Aboriginal peoples.

Target (6.2) 1a.1.1:	**Acceptable variance:**
To annually provide a range of opportunities for early and effective consultation with Aboriginal peoples who have indicated interest in activities on the FMA area.	Opportunity for meaningful consultation on General Development plans must be provided to members of the Sturgeon Lake Cree Nation, Zone 6 Métis Nation of Alberta and the Aseniwuche Winewak Nation of Canada annually.

Status: Meets

Consultation with Aboriginal communities regarding Canfor's activities on the FMA is carried out in conformance with the recently approved *Alberta First Nations Consultation Guidelines on Land Management and Resource Development* (GOA, 2006). Implementation of the guidelines has resulted in identification of the Horse Lake First Nation as having interests within Canfor's FMA operating area. Meanwhile, Canfor maintained contact through its consultation processes with Sturgeon Lake Cree Nation (SLCN) the Aseniwuche Winewak Nation of Canada (AWN) and Zone 6 Métis Nation of Alberta. Canfor retains a record of all meetings and actions related to First Nations communication in the *Creating Opportunities for Public Involvement* database maintained by Grande Prairie Division staff.

Following is a summary of communication between Canfor and local First Nations during 2009:

Horse Lake First Nation (HLFN)

- Canfor notified HLFN in February that Canfor would not be paying any invoices for information sharing efforts, as the company felt this was the responsibility of the Alberta Government. HLFN informed Canfor that they would not meet with Canfor representatives or review Canfor's plans without payment.
- In March, a General Development Plan (GDP) information sharing package was sent to HLFN to solicit feedback on Canfor's planned harvesting and silviculture activities.
- In October, an amendment to the Annual Operating Plan was sent by Canfor to HLFN
- Due to Canfor's position on payment, HLFN chose not to provide a response to either submission.

Sturgeon Lake Cree Nation (SLCN)

- In March, a General Development Plan (GDP) information sharing package was sent to SLCN to solicit feedback on Canfor's planned harvesting and silviculture activities.
- A meeting was set up in June to discuss any concerns SLCN had with Canfor plans and discuss next steps. SLCN mentioned that they had their own consultation policy that they wanted Canfor to follow. A copy of this policy was to be forwarded to the Canfor representative. After a number of unreturned phone messages, a copy of that policy still has not been received by Canfor, nor has a follow-up meeting been able to be scheduled.
- SLCN continues to provide a representative on Canfor's Forest Management Advisory Committee.

Aseniwuche Winewak Nation of Canada (AWN)

- Canfor notified AWN in February that Canfor would not be paying any invoices for information sharing efforts, as the company felt this was the responsibility of the Alberta Government.
- In March, a General Development Plan (GDP) information sharing package was sent to AWN to solicit feedback on Canfor's planned harvesting and silviculture activities
- In April Canfor received notification that there were no concerns.

Zone 6 Métis Nation of Alberta

- Zone 6 Métis Nation provides a representative to and is an active participant on Canfor's Forest Management Advisory Committee.

Objective (6.2) 1b: Special cultural and historic sites will be respected.
Indicator (6.2) 1b.1: Percentage of historic resources that are protected.

Target (6.2) 1b.1.1:	**Acceptable variance:**
100% conformance to the prescription for historical resources prepared by a certified archaeologist annually.	Zero.

Status: **Meets**

In 2009, 20 sites of historical significance were identified through field pre-impact assessments conducted by an independent certified archaeologist. All these sites were delineated from the harvest areas and avoided during operations.

Indicator (6.2) 1b.2: Percentage of known local historical resources that are respected.

Target (6.2) 1b.2.1:	**Acceptable variance:**
100% of known local historical resources are respected annually.	Zero.

Status: Meets

Known local historical resources are identified through use of the *Heritage Potential Model* that received approval from Alberta Community Development in 2002. This model was updated in the fall of 2006, and is currently undergoing planning for further revision. All 2009 planned harvest units were screened against the current model by a certified archaeologist to ensure that no harvest operations were planned within the immediate vicinity of known local historical resources.

Critical Element (6.3): Public Participation

Demonstrate that the public participation process is designed and functioning to the satisfaction of the participants.

Value (6.3) 1: Inclusive public process.
Objective (6.3) 1a: Affected and locally interested parties will be involved in the development of the decision-making process through an open, transparent and accountable process.
Indicator (6.3) 1a.1: Percentage conformance to the Forest Management Advisory Committee's Terms of Reference (FMAC, 2008).

Target (6.3) 1a.1.1:	**Acceptable variance:**
100% conformance to the FMAC's Terms of Reference (TOR) annually.	Zero.

Status: **Meets**

All FMAC activities were conducted in accordance with the TOR in 2009. The TOR was reviewed and ratified at the November 19th, 2008 FMAC meeting. The next review is scheduled for November 2010.

Indicator (6.3) 1a.2: Number of opportunities for public participation.

Target (6.3) 1a.2.1:	**Acceptable variance:**
To provide a minimum of 4 types of opportunities for public participation annually.	Zero

Status: **Meets**

Canfor offered the following opportunities for public involvement during 2009:

1. An active public advisory group (FMAC);
2. A public open house for review of Canfor's GDP and Annual Operating Plan (AOP) November 25th in Grande Prairie;
3. Open houses for review of Canfor's Vegetation Management Plan were held March 19th in Spirit River and March 16th in Grande Prairie;
4. Annual trapper consultation and notification regarding harvesting and silviculture plans;
5. Annual outfitter notification regarding harvesting and silviculture plans; and
6. Responses to letters and telephone calls to Canfor from the public.

In addition, the Sustainable Forest Management Plan (SFMP), Annual Performance Monitoring Report, 5 year GDP/AOP and DFMP was made available to the public in a variety of locations (at the Canfor Grande Prairie Woodlands office, local libraries, open houses, trade shows, and on www.canfor.com)

Indicator (6.3) 1a.3: Percentage of public inquiries that receive an initial contact.

Target (6.3) 1a.3.1:	**Acceptable variance:**
To make initial contact to 100% of public inquiries within one month of receipt.	To make initial contact with a minimum of 90% of the public inquiries within one month.

Status: **Meets**

Canfor received 9 public inquiries in 2009 (Table 38), and all responses were completed within 1 month.

Table 38. Response to Public Inquiries

Topic of Public Inquiry	Date of Inquiry	Method of Inquiry	Date of Initial Contact	Initial Contact Within 1 Month
Rock chips droping down on Hwy from traffic crossing overpass	19-Feb-09	Telephone	4-Feb-09	Yes
Chip truck running red lights	21-Apr-09	In Person	Arp 24, 2009	Yes
Stop sign laying down and bridge timbers to clean up	1-May-09	Telephone	4-May-09	Yes
Sprayed blueberries	19-Aug-09	Telephone	19-Aug-09	Yes
Truck jake brakes on	7-Dec-09	Telephone	8-Dec-09	Yes
Loaded truck in Town of Hines Creek	8-Dec-09	Telephone	8-Dec-09	Yes
Fast logging trucks around Dunes	8-Dec-09	Telephone	8-Dec-09	Yes
Logging trucks driving fast around Worsley ski area	11-Dec-09	Telephone	11-Dec-09	Yes
Speeding log trucks around the Dunes	21-Dec-09	Telephone	21-Dec-09	Yes

Critical Element (6.4): Information for Decision-Making

Provide relevant information to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems.

Value (6.4) 1: Current scientific, local, and traditional knowledge.
Objective (6.4) 1a: Forest management decisions will be based on scientific, local, and traditional knowledge.
Indicator (6.4) 1a.1: Number of opportunities to enhance scientific, local, and traditional knowledge.

Target (6.4) 1a.1.1:	**Acceptable variance:**
To provide a minimum of 8 different opportunities to enhance knowledge annually.	Zero.

Status: **Meets**
In 2009, Canfor provided the following opportunities to enhance knowledge:

1. Public access to the *2008 Annual Performance Monitoring Report* was provided at local libraries, on www.canfor.com, and at the Canfor Grande Prairie Woodlands office;
2. Public access to the approved 2009, 5 year GDP/AOP was provided at open house(s), at local libraries and at the Canfor Grande Prairie Woodlands office;
3. Public access to the approved DFMP was provided at local libraries, on www.canfor.com and at the Canfor Grande Prairie Woodland office;
4. Financial and technical support for the Grande Prairie and Area Forest Educator was provided by Canfor and other local forestry companies;
   - In the 2009, the forest educator conducted 118 presentations covering 4,109 students.
5. Sponsorship and volunteering for Alberta Forestry Week "Walk Through the Forest", at which students learn about various forestry topics;
6. Sponsorship and volunteering for Alberta Forestry Week "Arbor Day" at which grade one students learn about the importance of trees;
7. Sponsorship of open houses (see (6.3) 1a.2.1 for details); and
8. Presentations at FMAC meetings by Jim Stephenson (State of the Forest Industry and Canfor operations update) and Jean-Paul Bielech (reforestation in Alberta) with Canfor.

Indicator (6.4) 1a.2: Number of active research projects.

Target (6.4) 1a.2.1:	**Acceptable variance:**
To be involved in a minimum of 10 active research projects annually.	Zero

Status: **Meets**

Research plays an essential role in the successful implementation of sustainable forest management. Research also provides important information used in decision-making regarding the management of forestry operations (i.e. timber harvesting, road construction and maintenance, silviculture, etc.) and forest products manufacturing.

Canfor is involved in research in a variety of ways. Each year, Canfor allocates significant resources to support forest research, forestry education, and projects that enhance the general public's forestry knowledge. The company also maintains representation on several associations, committees and groups that initiate or support research.

Table 39 indicates that in 2009, Canfor Grande Prairie Division participated in eleven research projects. Funding levels indicated are for the duration of the project, up to December 31, 2009. These levels fluctuate as active projects are completed and new projects are initiated.

Table 39. Research Projects, Reports and Organizations

Canfor Research Projects	
Project Name	**Funding ($)**
Competition Modeling	$626,811
EMEND Phases 9 - 13	$1,391,269
Grizzly Bear Health Project	$91,450
Fire # 7 Reforestation Research	$15,653
Nordic Trails	$17,978
Western Boreal Growth and Yield Association	$291,551
Foothills Growth & Yield Association	$243,859
MPB Research/Protection	$30,888
Boreal Forest Research Centre	$53,899
Foothills Landscape Management Forum	$81,532
OPTI Grade	$25,000
Total	**$2,869,890.21**

9. Summary

The status of the 61 targets found throughout this *2009 Annual Performance Monitoring Report* is summarized in Table 40 below.

Table 40. Summary of Performance

Classification	2006	2007	2008	2009
Number of targets"Meets"	36	38	37	50
Number of targets "Does Not Meet"	12	12	11	6
Number of targets "Not a scheduled reporting time"	9	10	7	1
Number of targets "Assessment Postponed"	0	0	5	4
Total number of CSA Z809-02 targets	**60**	**60**	**60**	**61**

Canfor's performance is assessed annually through internal and external audits. Canfor's independent third party audits are performed by KPMG Performance Registrar Inc, who define audit findings in the following categories:

- Good Practice: An Auditor's professional judgment where he/she notes a particular practice that stands out as above the industry norm or is an area where significant improvement over the previous year has been noted and the auditor wishes to recognize the company's efforts.
- Major nonconformities: Are pervasive or critical to the achievement of the SFM Objectives. They must be addressed immediately or certification cannot be achieved/maintained.
- Minor nonconformities: Are isolated incidents that are non-critical to the achievement of SFM Objectives. All nonconformities require the development of a corrective action plan within 30 days of the audit, which must be fully implemented by the operation within 3 months.
- Opportunities for Improvement: Are not nonconformities but are comments on specific areas of the SFM System where improvements could be made.

In 2009, 2 audits of the Grande Prairie Division's forestry systems were conducted:

- March 25-30, 2009 - Canfor internal audit of CAN/CSA Z809-02, including PEFC Chain of Custody for the Grande Prairie FMA area and ISO 14001:2004 for Grande Prairie FMA area and Hines Creek quota areas, with the following findings reported:
  - 7 good practices;
  - 2 minor nonconformities; and
  - 9 opportunities for improvement (4 of which were specifically for the PEFC chain of custody)
- August 17 to 21, 2009 - Independent third party surveillance audit of CAN/CSA Z809-02, including PEFC Chain of Custody for Grande Prairie FMA area and ISO 14001:2004 for Grande Prairie FMA area, with the following findings reported:
  - 1 opportunity for improvement.
- Aug 18-20, 2009 - Independent third party surveillance audit of CAN/CSA Z809-02 and ISO 14001:2004 for the Hines Creek Quota area, conducted jointly with Daishowa-Marubeni International Ltd (DMI) with the following findings reported:
  - 4 Good practices
  - 1 minor nonconformity
  - 2 opportunities for improvement

Note: Audit results include findings related to the ISO14001 standard which may be applicable to the Hines Creek quota areas but may not be related to SFM and/or the Grande Prairie FMA area.

All independent third party audit non-conformance incidents require a corrective action plan to be prepared by Canfor and approved by the registrar. As well, Canfor develops corrective action plans for all non-conformance incidents and opportunities for improvement detected by Canfor during inspections of operations. All incidents and related action plans are recorded in the *Incident Tracking System* database by Canfor woodlands staff.

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