



**ANNEX III**  
**Stewardship Report 2007-2011**

**2017-2027 DFMP**

**Prepared by FORCORP**  
**March 2017**





Binder	Type	ID	Name
ONE	Executive Summary		
	Chapter	1	Corporate Overview and Forest Management Approach
	Chapter	2	DFMP Development
	Chapter	3	Forest Landscape Assessment
	Chapter	4	Summary of Previous DFMP
	Chapter	5	Values, Objectives, Indicators, and Targets (VOITs)
	Chapter	6	Preferred Forest Management Scenario
	Chapter	7	DFMP Implementation
	Chapter	8	Research
	Glossary		
TWO	Annex	I	Forest Management Agreement (FMA)
	Annex	II	Communication and Consultation Plans
	Annex	III	Stewardship Report 2007-2011
	Annex	IV	Growth and Yield Program
	Annex	V	Growth and Yield
	Annex	VI	Timber Supply Analysis
	Annex	VII	Spatial Harvest Sequence
THREE	Annex	VIII	Landbase Development Document



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# Forest Stewardship Report

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Reporting Timber Years: 2007 – 2011

Millar Western Forest Products Ltd.'s FMA9700034

Submitted to:

Forestry and Emergency Response Division  
Forest Management Branch  
Alberta Environment and Sustainable Resource Development

Submitted by:

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Submitted On:

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## Table of Contents

1. Introduction.....	1
1.1. Purpose of Report .....	1
1.2. Corporate Overview .....	1
1.3. Geographical Area Covered in Report.....	1
1.4. Periods Covered in Report .....	2
2. Reporting Items.....	2
2.1. Performance Standards (VOITs).....	3
2.1.1. Notes on Data collection .....	3
VOIT 1 – Area of opening, mature + old, old and oldgrowthness forest by species strata for the gross and managed landbase for each FMU. ....	3
VOIT 2 – Opening patch size distribution on the gross landbase for each FMU.....	7
VOIT 3 – Percent of overall oldgrowthness forest area that is interior oldgrowthness forest by FMU for the gross landbase. ....	9
VOIT 4 – Open all-weather forestry road density by FMU. ....	10
VOIT 5 – Open seasonal/temporary forestry road length by FMU.....	11
VOIT 6 – Existence of process for maintaining plant communities uncommon in the DFA and/or Province.....	11
VOIT 7 – Area of unsalvaged burned forest. ....	14
VOIT 8 – Area of unsalvaged blowdown forest. ....	14
VOIT 9 – Number of non-conformance incidents with FMA Operating Ground Rules or Alberta government approved Millar Western riparian management strategy.....	15
VOIT 10 – Volume and area harvested in riparian areas under Alberta government approved Millar Western Riparian Management Strategy.....	17
VOIT 11 – Percent of FMU AAC residual structure (living and dead), within a harvest area, representative of the status (living/dead), size and species distribution of the overstorey trees by operating compartment. ....	18
VOIT 12 – Percent of harvested area, by FMU, with downed woody debris (DWD) volume equivalent to pre-harvest conditions, by FMU. ....	19
VOIT 13 – Number of non-conformances incidents with FMA OGRs in relation to identified sensitive sites located on the DFA.....	20
VOIT 14 – Number of non-conformance incidents with Millar Western's OGRs or Code of Practice for Water Course Crossings, by FMU. ....	21
VOIT 15 – Area of suitable habitat within each FMU for each biodiversity assessment species.....	23
VOIT 16 – Number and area (ha) of in-situ genetic conservation areas.....	25
VOIT 17 – Number of provenances and genetic lines in ex-situ gene banks and trials. ....	25
VOIT 18 – Stakeholder consultation regarding protected areas as identified through government processes.....	25
VOIT 19 – Annual percent of satisfactory regenerated surveys (establishment surveys and performance surveys) by company and FMU. ....	26
VOIT 20 – Cumulative percent of satisfactory regenerated surveys (establishment and performance surveys) by company and FMU. ....	28

VOIT 21 – Forestry Operator specific regenerated strata distribution percentage by subunit. ....	29
VOIT 22 – Percent of change in managed landbase area. ....	30
VOIT 23 – Area affected by insects, disease or natural calamities as reported by Alberta gov't. and Millar Western.....	30
VOIT 24 – Percent of Rank 1 and Rank 2 mountain pine beetle susceptible stand area harvested. ....	31
VOIT 25 – Percent of identified MPB infested stand area harvested. ....	33
VOIT 26 – Area of pure pine and mixedwood pine stands by 'mature' and 'old' seral stage.....	34
VOIT 27 – Existence and implementation of a noxious weed program.....	35
VOIT 28 – Existence of programs to select and monitor amphibian and soil micro-organism indicator species. ....	35
VOIT 29 – Number of incidents of non-conformance with respect to bared area (roads and landings) within harvest areas.....	36
VOIT 30 – Number of incidents of non-conformance with respect to reportable soil erosion and slumping.....	36
VOIT 31 – Number of incidents of non-conformance with respect to rutting in harvest areas. ....	38
VOIT 32 – Percent of eligible third order watersheds in which the annual average runoff coefficient value is > 15% of the baseline condition.....	39
VOIT 33 – Percent of eligible first order watersheds in which the annual average runoff coefficient value is > 50% of the baseline condition.....	40
VOIT 34 – Existence of research initiative to develop relationship between operations and water quality, and implementation of recommendations to mitigate negative impact on water quality.....	41
VOIT 35 – Riparian buffers maintained as outlined in FMA operational ground rules or Alberta government approved riparian management strategy.....	41
VOIT 36 – Existence of carbon budget analysis on the Preferred Forest Management Strategy of the 2007 DFMP.....	42
VOIT 37 – Refer to VOIT 22.....	42
VOIT 38 – Compliance with Annex 1 of the Alberta Forest Management Planning Standard (April 2006), regarding the process for establishing appropriate annual allowable cuts (AACs).....	42
VOIT 39 – Adherence to communication initiatives related to non-timber commercial rights holders, as defined in the external communications section of the DFMP/SFMP Communication Implementation Plan.....	43
VOIT 40 – Number of non-conformance incidents as per The Heritage Resources Act. ....	44
VOIT 41 – Development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations.....	44
VOIT 42 – Percent of Whitecourt FireSmart Community Zone area in the 'extreme' and 'high' Fire Behaviour Potential (FPB) rating categories. ....	45
VOIT 43 – Percent of DFA area in the 'extreme' and 'high' Fire Behaviour Potential rating categories.....	45
VOIT 44 – Adhere to communication initiatives related to the integration of other uses and timber management activities, as defined in the external communications section of the DFMP Communication Implementation Plan.....	46
VOIT 45 – Difference between managed and natural stand yield.....	47
VOIT 46 – Meet Alberta government's current expectations for aboriginal consultation. ....	48
VOIT 47 – Contract opportunities provided to the Alexis Nakota Sioux Nation (i.e. logging and silviculture). ....	49
VOIT 48 – Number of Environmental Co-Stewardship Committee (ECSC) meetings. ....	49
VOIT 49 – Meet expectations of Section 5 of CSA Z809-2002 - Public Participation Requirements.....	50
VOIT 50 – Contribution to, and implementation of, a management plan for Huestis Forest. ....	50



VOIT 51 – Development and incorporation of Virtual Open House into corporate website.....	51
VOIT 52 – Establishment of permanent Public Advisory Committee (PAC) and number of group meetings.....	51
VOIT 53 – Implementation of a 24-hour toll-free telephone hotline .....	53
<b>2.2. Company Commitments .....</b>	<b>54</b>
Commitment 1 – Reconcile SHS, following DFMP approval.....	54
Commitment 2 – Re-run BAP analysis on SHS submitted with 2007 DFMP.....	54
Commitment 3 – Maintain DFA Harvest Planning Committee.....	54
Commitment 4 – Develop and implement Industrial Salvage tracking process.....	55
Commitment 5 – Revise FMA Operating Ground Rules.....	55
Commitment 6 – Maintain DFA Silviculture Committee.....	55
Commitment 7 – Develop Alternative Regeneration Standards (ARS).....	56
Commitment 8 – Develop specific regeneration strategies to mitigate insect and disease infestations.....	56
Commitment 9 – Develop and secure Alberta government’s approval of a wider suite of managed stand yield curves.....	56
Commitment 10 – Implement growth and yield initiatives.....	57
Forest Inventory .....	57
Temporary Sample Plots.....	57
Permanent Sample Plot Program .....	58
Regeneration Surveys.....	58
Mortality and Ingress .....	58
Tree Improvement.....	58
Association Memberships .....	59
Data Archiving .....	59
Commitment 11 – Investigate new technologies for developing forest and vegetation inventory for DFA.....	59
Commitment 12 – Develop and implement operational risk rating system to provide guidance in determining environmental conditions in which forest operations can be conducted in an environmentally sound manner.....	60
Commitment 13 – Investigate the need for BAP SHEs and HSMS validation and refinement.....	60
<b>3. Appendix 1 – VOIT &amp; Commitment Summary .....</b>	<b>62</b>



# 1. Introduction

## 1.1. Purpose of Report

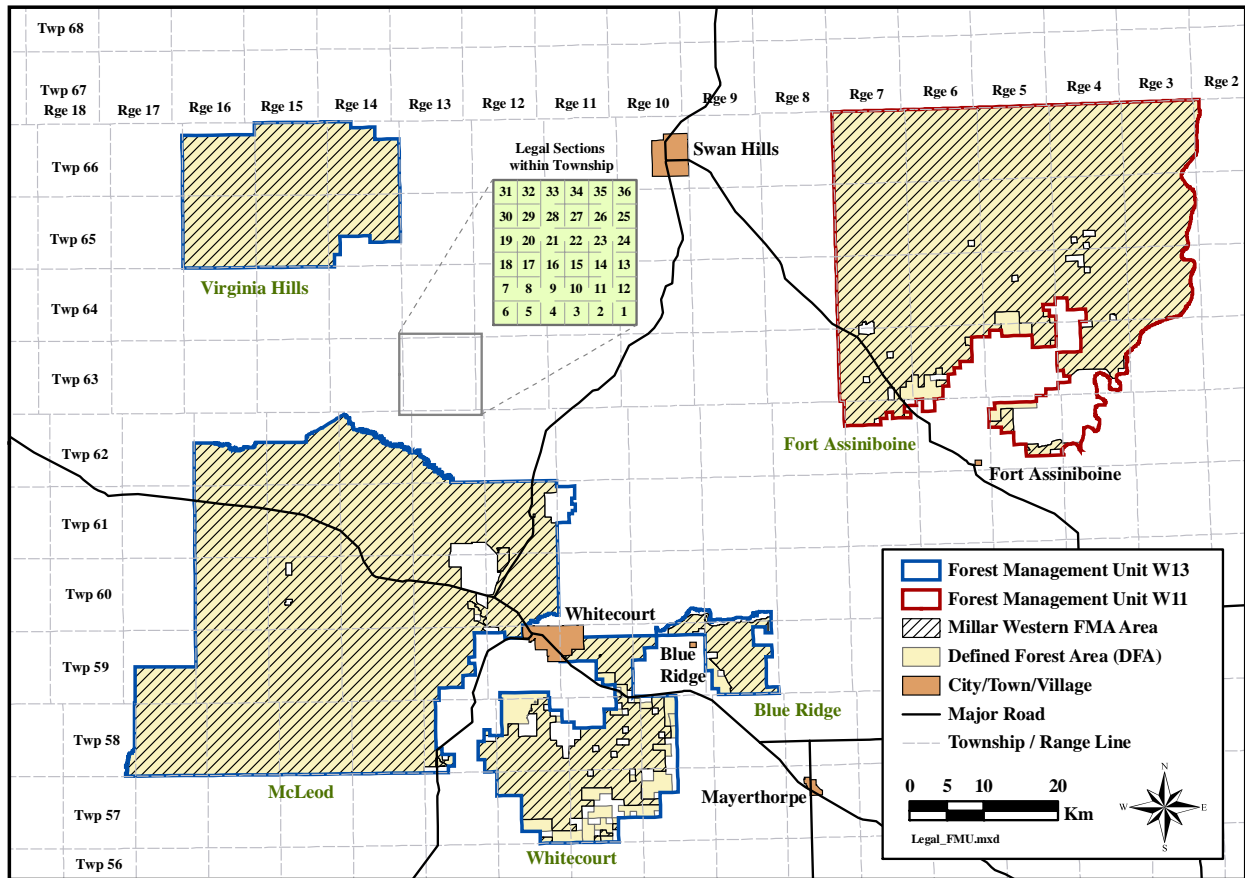
This report addresses the stewardship reporting commitments defined in Millar Western Forest Products Ltd.'s (Millar Western) 2007-16 Forest Management Plan (FMP) for its Forest Management Agreement (FMA) 9700034. Millar Western has, in addition, produced a public sustainability report providing environmental performance data for all its manufacturing and woodlands operations for periods corresponding to this report. It is accessible on its corporate website: <http://www.millarwestern.com>.

## 1.2. Corporate Overview

Millar Western is a privately-held diversified forest products company that has been active in Alberta's forest industry since the 1920s. Today, the company operates lumber manufacturing facilities in Whitecourt, Boyle and Fox Creek, and a bleached chemi-thermo-mechanical pulp (BCTMP) mill in Whitecourt. The company's sawmills have a combined annual production capacity of 570 million board feet, while the pulp mill produces approximately 320,000 air-dried metric tonnes of pulp per year. Millar Western's primary lumber markets are Canada, the U.S. and China; its pulp is shipped to Asia, Europe and the Americas. Woodlands operations in support of these operations are managed out of Whitecourt and Boyle. As of 2011, all land- and volume-based tenures managed by Millar Western have been certified to the SFI standard for sustainable forest management. The company also holds chain-of-custody certification under the PEFC and FSC programs. Millar Western employs 600 full-time employees and hundreds more on a seasonal contract basis in log harvesting and hauling, silviculture and mill maintenance.

## 1.3. Geographical Area Covered in Report

Millar Western's FMA area is located in west-central Alberta, approximately 160 km northwest of Edmonton, and comprises Forest Management Units (FMU) W11 and W13. The FMA combined with grazing dispositions form the Defined Forest Area (DFA), as shown in the following map. The DFA is the basis for the 2007-16 FMP and this report.



### 1.4.Periods Covered in Report

This report covers the following the Alberta government’s timber years:

- 2007 timber year – May 1, 2007 – April 30, 2008
- 2008 timber year – May 1, 2008 – April 30, 2009
- 2009 timber year – May 1, 2009 – April 30, 2010
- 2010 timber year – May 1, 2010 – April 30, 2011
- 2011 timber year – May 1, 2011 – April 30, 2012

## 2. Reporting Items

Millar Western’s 2007-16 FMP was developed around a set of values, objectives, indicators and targets (VOITs) that serve as performance standards for Millar Western’s forest management activities on the DFA landbase. In addition, Millar Western committed to other actions that are identified in Chapter 6 (Sustainable Forest Management Strategy) and Appendix XXIII (Commitments) of the FMP. The VOITs and commitments are summarized in a table provided as an appendix to this report. Millar Western’s performance data for the reporting period 2007-11 are provided in the following sections: *Performance Standards (VOITs)* and *Company Commitments*.

## 2.1. Performance Standards (VOITs)

This section reports on the VOITs, as defined in the *Performance Standards* section of Chapter 6 of Millar Western's 2007-16 FMP. The VOITs are based on values identified both by the Alberta government, Millar Western and Millar Western stakeholders through its FMP consultation process. Chapter 6 of the FMP organized the VOITs according to Canadian Council of Forest Ministers (CCFM) criteria; however, they are provided here in numerical order.

### 2.1.1. Notes on Data collection

Following the Alberta government's approval of Millar Western's 2007-16 Forest Management Plan (FMP), Millar Western submitted a revised FMP landbase and spatial harvest sequence (SHS). In this later submission, the harvest areas for the 2004-06 timber years were incorporated into the landbase, and the SHS was revised to account for areas that, though included in the original SHS, had already been harvested. Because these updates were completed after the FMP submission, the summaries presented in the 2007-11 stewardship report differ slightly from those presented in the FMP.

In 2013, Millar Western submitted to the Alberta government a report covering annual reporting requirements for the 2007-10 timber years. This stewardship report includes many of the same metrics provided in that report, as per reporting requirements. While some discrepancies exist between the two reports, the metrics in this stewardship report should be considered the most accurate, reflecting the data cleaning efforts Millar Western has undertaken since the preparation and submission of the 2007-10 report. Going forward, slight inconsistencies in historical data may also occur among reports, as numbers are updated.

Where information for other DFA forestry operators was available, Millar Western has incorporated it into the applicable reporting metrics.

<b>VOIT 1 – Area of opening, mature + old, old and oldgrowthness forest by species strata for the gross and managed landbase for each FMU.</b>	
Target	At the start of the 2017 timber year, achieve the seral stage class species strata proportions as defined in the target.
Stewardship Reporting	(i) Actual area and proportion of area within each of the above-defined seral stage classes for each species.  (ii) Variance between actual area and proportion within each of the above-defined seral stage classes for each species strata and the target maximum and minimum values stated in the tables.

### Re-statement of 2007 and 2017 metrics

#### FMU W11 – Gross Landbase – 2007

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	3,124	2%	28,403	20%	441	0%	11,231	8%	55,473	39%
	BW	7	0%	20	0%	4	0%	14	0%	140	0%
DC	AP	252	0%	865	1%	14	0%	401	0%	1,574	1%
	AS	719	1%	3,141	2%	0	0%	1,542	1%	5,144	4%
CD	PA	361	0%	836	1%	0	0%	73	0%	1,606	1%
	SA	1,626	1%	3,427	2%	13	0%	1,595	1%	5,313	4%
C	LT	62	0%	6,848	5%	826	1%	2,355	2%	24,441	17%
	PL	1,150	1%	5,914	4%	57	0%	1,316	1%	11,973	8%
	SB	183	0%	4,012	3%	0	0%	1,056	1%	25,733	18%
	SW	2,188	2%	7,407	5%	0	0%	1,226	1%	10,513	7%
<b>Total</b>		<b>9,672</b>	<b>7%</b>	<b>60,873</b>	<b>43%</b>	<b>1,355</b>	<b>1%</b>	<b>20,809</b>	<b>15%</b>	<b>141,912</b>	<b>100%</b>

*FMU W11 – Gross Landbase – 2017*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	7,417	5%	24,202	17%	1,347	1%	11,368	8%	55,473	39%
	BW	4	0%	97	0%	14	0%	28	0%	140	0%
DC	AP	142	0%	758	1%	71	0%	387	0%	1,574	1%
	AS	1,066	1%	2,356	2%	96	0%	1,286	1%	5,144	4%
CD	PA	297	0%	729	1%	0	0%	130	0%	1,606	1%
	SA	1,436	1%	2,712	2%	38	0%	1,559	1%	5,313	4%
C	LT	62	0%	8,818	6%	1,770	1%	3,936	3%	24,441	17%
	PL	1,257	1%	5,107	4%	138	0%	2,337	2%	11,973	8%
	SB	124	0%	4,987	4%	153	0%	1,665	1%	25,733	18%
	SW	3,173	2%	6,132	4%	0	0%	1,586	1%	10,513	7%
Total		14,978	11%	55,898	39%	3,627	3%	24,282	17%	141,912	100%

*FMU W11 – Managed Landbase – 2007*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	3,053	3%	27,789	31%	416	0%	10,949	12%	54,485	61%
	BW	7	0%	16	0%	4	0%	11	0%	131	0%
DC	AP	246	0%	847	1%	14	0%	391	0%	1,535	2%
	AS	717	1%	2,955	3%	0	0%	1,439	2%	4,950	6%
CD	PA	354	0%	834	1%	0	0%	71	0%	1,596	2%
	SA	1,621	2%	3,237	4%	5	0%	1,509	2%	5,097	6%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	1,114	1%	5,846	7%	57	0%	1,292	1%	11,811	13%
	SB	0	0%	0	0%	0	0%	0	0%	93	0%
	SW	2,171	2%	6,792	8%	0	0%	1,114	1%	9,809	11%
Total		9,284	10%	48,315	54%	496	1%	16,776	19%	89,507	100%

*FMU W11 – Managed Landbase – 2017*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	7,403	8%	23,545	26%	1,295	1%	11,024	12%	54,485	61%
	BW	4	0%	88	0%	10	0%	24	0%	131	0%
DC	AP	142	0%	740	1%	71	0%	377	0%	1,535	2%
	AS	1,065	1%	2,164	2%	75	0%	1,170	1%	4,950	6%
CD	PA	297	0%	727	1%	0	0%	129	0%	1,596	2%
	SA	1,434	2%	2,508	3%	25	0%	1,453	2%	5,097	6%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	1,257	1%	5,033	6%	137	0%	2,299	3%	11,811	13%
	SB	0	0%	0	0%	0	0%	0	0%	93	0%
	SW	3,160	4%	5,463	6%	0	0%	1,368	2%	9,809	11%
Total		14,761	16%	40,268	45%	1,614	2%	17,843	20%	89,507	100%

*FMU W13 – Gross Landbase – 2007*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	7,125	3%	30,352	11%	728	0%	15,609	6%	62,656	23%
	BW	106	0%	59	0%	4	0%	16	0%	1,259	0%
DC	AP	1,332	0%	3,076	1%	55	0%	1,220	0%	6,439	2%
	AS	2,087	1%	10,558	4%	120	0%	6,111	2%	21,234	8%
CD	PA	4,044	2%	3,033	1%	56	0%	1,591	1%	10,967	4%
	SA	3,530	1%	9,505	4%	260	0%	5,318	2%	20,091	8%
C	LT	45	0%	2,025	1%	823	0%	1,430	1%	6,588	2%
	PL	26,148	10%	11,087	4%	2,125	1%	8,127	3%	72,114	27%
	SB	4,750	2%	13,949	5%	1,416	1%	8,608	3%	44,333	17%
	SW	7,540	3%	10,415	4%	53	0%	4,259	2%	21,481	8%
Total		56,707	21%	94,060	35%	5,641	2%	52,290	20%	267,162	100%



*FMU W13 – Gross Landbase – 2017*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	5,852	2%	37,163	14%	3,295	1%	14,729	6%	62,656	23%
	BW	15	0%	95	0%	0	0%	39	0%	1,259	0%
DC	AP	1,269	0%	2,493	1%	138	0%	694	0%	6,438	2%
	AS	2,230	1%	10,188	4%	1,254	0%	5,639	2%	21,234	8%
CD	PA	1,921	1%	2,275	1%	95	0%	591	0%	10,968	4%
	SA	4,444	2%	8,056	3%	321	0%	4,730	2%	20,091	8%
C	LT	45	0%	2,831	1%	1,518	1%	1,622	1%	6,588	2%
	PL	9,315	3%	6,841	3%	1,163	0%	3,270	1%	72,114	27%
	SB	6,710	3%	13,184	5%	1,314	0%	8,265	3%	43,921	16%
	SW	7,316	3%	8,349	3%	145	0%	3,586	1%	21,893	8%
<b>Total</b>		<b>39,118</b>	<b>15%</b>	<b>91,476</b>	<b>34%</b>	<b>9,243</b>	<b>3%</b>	<b>43,164</b>	<b>16%</b>	<b>267,162</b>	<b>100%</b>

*FMU W13 – Managed Landbase – 2007*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	5,462	3%	29,656	14%	700	0%	14,527	7%	59,369	27%
	BW	59	0%	55	0%	4	0%	22	0%	1,141	1%
DC	AP	1,188	1%	3,001	1%	51	0%	1,127	1%	6,143	3%
	AS	1,209	1%	10,081	5%	113	0%	5,344	2%	19,584	9%
CD	PA	3,780	2%	2,947	1%	56	0%	1,533	1%	10,566	5%
	SA	2,890	1%	8,871	4%	241	0%	4,640	2%	18,408	8%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	24,224	11%	10,746	5%	2,092	1%	7,385	3%	68,433	31%
	SB	977	0%	7,452	3%	960	0%	4,022	2%	17,157	8%
	SW	5,692	3%	8,922	4%	42	0%	2,970	1%	17,503	8%
<b>Total</b>		<b>45,482</b>	<b>21%</b>	<b>81,732</b>	<b>37%</b>	<b>4,259</b>	<b>2%</b>	<b>41,569</b>	<b>19%</b>	<b>218,304</b>	<b>100%</b>

*FMU W13 – Managed Landbase – 2017*

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	5,830	3%	35,953	16%	3,211	1%	13,322	6%	59,369	27%
	BW	9	0%	74	0%	0	0%	39	0%	1,141	1%
DC	AP	1,259	1%	2,375	1%	126	0%	629	0%	6,141	3%
	AS	2,229	1%	9,594	4%	1,233	1%	5,187	2%	19,584	9%
CD	PA	1,921	1%	2,180	1%	88	0%	562	0%	10,567	5%
	SA	3,808	2%	7,391	3%	287	0%	4,244	2%	18,408	8%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	9,022	4%	6,414	3%	1,103	1%	2,986	1%	68,433	31%
	SB	2,938	1%	6,278	3%	802	0%	3,811	2%	16,986	8%
	SW	5,479	3%	6,511	3%	93	0%	2,770	1%	17,675	8%
<b>Total</b>		<b>32,495</b>	<b>15%</b>	<b>76,770</b>	<b>35%</b>	<b>6,943</b>	<b>3%</b>	<b>33,549</b>	<b>15%</b>	<b>218,304</b>	<b>100%</b>

## Reporting

(i) Actual area and proportion of area within each of the above-defined seral stage classes for each species strata.

### FMU W11 – Gross Landbase – 2011

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	4,518	3%	28,859	20%	1,546	1%	13,206	9%	55,473	39%
	BW	0	0%	100	0%	18	0%	14	0%	140	0%
DC	AP	166	0%	856	1%	71	0%	432	0%	1,574	1%
	AS	402	0%	3,063	2%	182	0%	1,687	1%	5,144	4%
CD	PA	185	0%	825	1%	0	0%	87	0%	1,606	1%
	SA	1,682	1%	3,109	2%	38	0%	1,879	1%	5,313	4%
C	LT	62	0%	8,818	6%	1,770	1%	3,287	2%	24,441	17%
	PL	767	1%	6,171	4%	144	0%	2,581	2%	11,973	8%
	SB	183	0%	4,987	4%	153	0%	1,142	1%	25,733	18%
	SW	2,299	2%	7,137	5%	0	0%	1,627	1%	10,513	7%
Total		10,263	7%	63,926	45%	3,922	3%	25,943	18%	141,912	100%

### FMU W11 – Managed Landbase – 2011

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	4,514	5%	28,189	31%	1,480	2%	12,900	14%	54,486	61%
	BW	0	0%	92	0%	14	0%	11	0%	131	0%
DC	AP	165	0%	838	1%	71	0%	422	0%	1,535	2%
	AS	401	0%	2,871	3%	161	0%	1,579	2%	4,950	6%
CD	PA	185	0%	823	1%	0	0%	85	0%	1,596	2%
	SA	1,678	2%	2,905	3%	25	0%	1,785	2%	5,097	6%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	766	1%	6,097	7%	143	0%	2,545	3%	11,811	13%
	SB	0	0%	0	0%	0	0%	0	0%	93	0%
	SW	2,282	3%	6,522	7%	0	0%	1,457	2%	9,809	11%
Total		9,992	11%	48,337	54%	1,895	2%	20,784	23%	89,507	100%

### FMU W13 – Gross Landbase – 2011

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Gross Forested LB	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	4,954	2%	39,491	15%	3,111	1%	16,494	6%	62,668	23%
	BW	11	0%	88	0%	4	0%	21	0%	1,247	0%
DC	AP	1,344	1%	2,569	1%	172	0%	1,166	0%	6,439	2%
	AS	2,892	1%	10,972	4%	1,254	0%	6,271	2%	21,234	8%
CD	PA	1,856	1%	2,196	1%	221	0%	1,360	1%	10,967	4%
	SA	3,459	1%	9,172	3%	469	0%	5,600	2%	20,091	8%
C	LT	45	0%	2,831	1%	1,518	1%	1,515	1%	6,588	2%
	PL	8,531	3%	10,286	4%	1,996	1%	6,866	3%	72,114	27%
	SB	5,685	2%	14,791	6%	2,021	1%	9,182	3%	44,333	17%
	SW	6,701	3%	9,453	4%	213	0%	4,553	2%	21,481	8%
Total		35,479	13%	101,850	38%	10,977	4%	53,029	20%	267,162	100%

FMU W13 – Managed Landbase – 2011

BCG	Species Strata	Opening		Mature + Old		Old		Oldgrowthness		Managed Landbase	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
D	AW	4,941	2%	38,280	18%	3,015	1%	15,277	7%	59,380	27%
	BW	5	0%	67	0%	4	0%	27	0%	1,130	1%
DC	AP	1,333	1%	2,491	1%	159	0%	1,090	0%	6,143	3%
	AS	2,015	1%	10,380	5%	1,233	1%	5,651	3%	19,584	9%
CD	PA	1,849	1%	2,110	1%	214	0%	1,326	1%	10,566	5%
	SA	2,823	1%	8,506	4%	435	0%	5,002	2%	18,408	8%
C	LT	0	0%	0	0%	0	0%	0	0%	0	0%
	PL	8,226	4%	9,859	5%	1,936	1%	6,371	3%	68,433	31%
	SB	1,913	1%	7,645	4%	1,268	1%	4,565	2%	17,157	8%
	SW	4,860	2%	7,959	4%	161	0%	3,558	2%	17,503	8%
Total		27,965	13%	87,298	40%	8,426	4%	42,865	20%	218,304	100%

(ii) Variance between actual area and proportion within each of the above-defined seral stage classes for each species strata and the target maximum and minimum values stated in the tables.

Five-year targets were not defined; therefore, variances will be reported in the 2012-16 stewardship report.

**Commentary**

Detailed descriptions of seral stages, oldgrowthness and species strata are contained within Section 4 of the Commitments Chapter of the 2007-16 DFMP.

VOIT 2 – Opening patch size distribution on the gross landbase for each FMU.	
Target	At the start of the 2017 timber year, achieve the opening patch size distribution targets.
Stewardship Reporting	(i) Actual harvest size statistics. (ii) Actual opening patch area and proportion of total opening patch area within each opening patch size class. (iii) Variance between actual opening patch area and proportion of total opening patch area within each size class and the PFMS (preferred forest management scenario) forecasted values.

**Re-statement of 2007 and 2017 metrics**

2007

FMU	< 4 ha		≥ 4 & < 100 ha		≥ 100 & < 1000 ha		≥ 1000 ha		Total Patch Area
	Ha	%	Ha	%	Ha	%	Ha	%	Ha
W11	102	1.1%	7,746	80.1%	1,824	18.9%	0	0.0%	9,672
W13	495	0.9%	16,857	29.7%	6,992	12.3%	32,363	57.1%	56,707

NOTE: The majority of the opening patch area in the W13 gross landbase is contained within the ≥ 1,000 ha size class. This area represents that created by the Virginia Hills Fire of 1998.

2017

FMU	< 4 ha		≥ 4 & < 100 ha		≥ 100 & < 1000 ha		≥ 1000 ha		Total Patch Area
	Ha	%	Ha	%	Ha	%	Ha	%	Ha
W11	167	1.1%	7,057	47.1%	6,238	41.6%	1,516	10.1%	14,978
W13	1,366	3.5%	18,260	46.7%	13,538	34.6%	5,954	15.2%	39,117

## Reporting

### (i) Actual harvest size statistics.

The statistics for actual harvest area size (for all operators that information was available for), are summarized below, by timber year.

#### FMU W11

W11		Area (ha)		Size Class (ha) / No of Blocks			
Timber Year	Count	Avg.	Total	> 0 - <= 2	> 2 - <= 25	> 25 - <= 100	> 100
2007	22	29.2	642	0 / 0	209 / 15	193 / 6	241 / 1
2008	23	33.5	770	0 / 0	160 / 10	609 / 13	0 / 0
2009	8	83.2	665	0 / 0	23 / 1	275 / 6	367 / 1
2010	15	34.0	511	0 / 0	109 / 7	401 / 8	0 / 0
2011	18	54.0	972	0 / 0	45 / 3	567 / 12	360 / 3
Total	86	41.4	3,560	0 / 0	546 / 36	2,045 / 45	968 / 5

#### FMU W13

W13		Area (ha)		Size Class (ha) / No of Blocks			
Timber Year	Count	Avg.	Total	> 0 - <= 2	> 2 - <= 25	> 25 - <= 100	> 100
2007	58	26.3	1,525	0 / 0	505 / 37	762 / 19	258 / 2
2008	71	28.2	2,005	0 / 0	714 / 45	970 / 24	321 / 2
2009	139	20.1	2,798	5 / 4	1,354 / 98	1,439 / 37	0 / 0
2010	99	28.0	2,770	3 / 2	649 / 60	1,349 / 32	768 / 5
2011	55	28.5	1,568	2 / 4	309 / 29	1,027 / 20	229 / 2
Total	422	25.3	10,664	10 / 10	3,531 / 269	5,548 / 132	1,575 / 11

### (ii) Actual opening patch area and proportion of total opening patch area within each opening patch size class.

The opening patch size class and proportion on the gross landbase of the DFA are summarized below.

#### 2011

FMU	< 4 ha		>= 4 & < 100 ha		>= 100 & < 1000 ha		>= 1000 ha		Total Patch Area
	Ha	%	Ha	%	Ha	%	Ha	%	Ha
W11	82	0.8%	7,491	72.3%	2,784	26.9%	0	0.0%	10,356
W13	1,138	3.2%	19,513	55.0%	13,622	38.4%	1,206	3.4%	35,478

### (iii) Variance between actual opening patch area and proportion of total opening patch area within each size class and the PFMS forecasted values.

Five-year targets were not defined; therefore, variances will be reported in the 2012-16 stewardship report.

## Commentary

N/A

<b>VOIT 3 – Percent of overall oldgrowthness forest area that is interior oldgrowthness forest by FMU for the gross landbase.</b>	
<b>Target</b>	At the start of the 2017 timber year, achieve the target proportions of oldgrowthness forest that is interior oldgrowthness forest within the gross landbase for each.
<b>Stewardship Reporting</b>	(i) Actual overall proportion of oldgrowthness forest that is interior oldgrowthness forest for the gross landbase by FMU.  (ii) Variance between actual proportion of interior oldgrowthness forest and the PFMS (preferred forest management scenario) forecasted values.

**Re-statement of 2007 and 2017 metrics**

*2007 – Gross Landbase*

<b>FMU</b>	<b>Total Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (%)</b>
W11	20,809	12,036	58%
W13	52,290	37,412	72%

*2017 – Gross Landbase*

<b>FMU</b>	<b>Total Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (%)</b>
W11	24,282	13,133	54%
W13	43,164	27,984	65%

**Reporting**

*(i) Actual overall proportion of oldgrowthness forest that is interior oldgrowthness forest for the gross landbase by FMU.*

The proportion of oldgrowthness area that is interior oldgrowthness area on the DFA gross landbase is summarized below

*2011 – Gross Landbase*

<b>FMU</b>	<b>Total Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (ha)</b>	<b>Interior Oldgrowthness (%)</b>
W11	25,943	14,177	55%
W13	53,029	34,820	66%

*(ii) Variance between actual proportion of interior oldgrowthness forest and the PFMS (preferred forest management scenario) forecasted values.*

Five-year targets were not defined; therefore, variances will be reported in the 2012-16 stewardship report.

**Commentary**

A detailed description of oldgrowthness is contained within Section 4 of the Commitments Chapter of the 2007-16 DFMP.

VOIT 4 – Open all-weather forestry road density by FMU.	
Target	At the start of the 2017 timber year, the target open all-weather forestry road densities within the DFA, by FMU are: W11 - < 0.240km/km <sup>2</sup> W13 - < 0.334 km/km <sup>2</sup>
Stewardship Reporting	(i) Actual density of the open all-weather forestry roads within the DFA, by FMU. (ii) Variance between actual density and the stated target density, for forestry roads, within the DFA, by FMU. (iii) Actual density of open all weather forestry roads and other user roads within the DFA by FMU (MWFP will report on the other user roads under the condition that the Alberta government provides Millar Western the other road users data in a format satisfactory to Millar Western within a reasonable period of time, following Millar Western's request).

### Reporting

Millar Western's road datasets are primarily used for operational planning and implementation; therefore, more generic data sources have been utilized to report on this VOIT. Specifically, forestry roads (Disposition Type – DLO) and other user roads (Disposition Type – LOC) were extracted from the Alberta government's Digital Integrated Disposition System (DIDS) (January 7, 2014) and intersected with the Millar Western's DFA. While the DIDS provides a more consistent and complete dataset, it also contains some roads that are proposed or in a state of reclamation. The summaries presented here include all the roads (DLOs and LOCs) contained within DIDS; whether or not the road is considered or approved as 'all-weather' is not taken into account.

*(i) Actual density of the open all-weather forestry roads within the DFA, by FMU.*

The density of all forestry roads under disposition on the DFA is presented below, by FMU.

Disp Type	Description	Road Density on DFA (Km/Km <sup>2</sup> )	
		W11	W13
DLO	Forestry Roads	0.074	0.287

*(ii) Variance between actual density and the stated target density, for forestry roads, within the DFA, by FMU.*

Five-year targets were not defined; therefore, variances will be reported in the 2012-16 stewardship report.

*(iii) Actual density of open all weather forestry roads and other user roads within the DFA by FMU (MWFP will report on the other user roads under the condition that the Alberta government provides Millar Western the other road users data in a format satisfactory to Millar Western within a reasonable period of time, following Millar Western's request).*

The density of forestry and other user roads under disposition on the DFA are presented below, by FMU.

Disp Type	Description	Road Density on DFA (Km/Km <sup>2</sup> )	
		W11	W13
DLO	Forestry Roads	0.074	0.287
LOC	Non-forestry Roads	0.208	0.345
Total		0.282	0.631

### Commentary

N/A



<b>VOIT 5 – Open seasonal/temporary forestry road length by FMU.</b>	
Target	At the end of each timber year (beginning with the 2007 timber year), the target open seasonal/temporary road lengths within the DFA, by FMU, is: W11 - < 50.0 km W13 - < 220.0 km
Stewardship Reporting	Length of seasonal/temporary roads opened and used by forestry operators on the DFA, by FMU, for timber year.

**Reporting**

The length of seasonal/temporary roads opened and used by forestry operators on the DFA is presented below, by FMU and timber year. Millar Western has attempted to represent other forestry operators in this summary; however, it is expected that these operators also used other roads not captured in this data.

Timber Year	Road Length on DFA (Km)	
	W11	W13
2007	15.3	16.7
2008	15.5	32.1
2009	0.0	58.8
2010	6.2	22.0
2011	28.8	50.6

**Commentary**

N/A

<b>VOIT 6 – Existence of process for maintaining plant communities uncommon in the DFA and/or Province.</b>	
Target	By December 31, 2008, develop and implement a process for identifying uncommon plant communities, training field staff in their identification, tracking their location and protecting.
Stewardship Reporting	(i) The identity and area occupied by identified plant communities uncommon to the DFA and the Province.  (ii) The percent of the identified uncommon plant communities on the DFA that have been disturbed by forestry operations.  (iii) Maps showing distribution of identified uncommon plant communities.

**Reporting**

*(i) The identity and area occupied by identified plant communities uncommon to the DFA and the Province.*

The identity and number of occurrences of uncommon plant species and communities on the DFA, as provided in the following table, were sourced in December 2013 from the on-line Alberta Conservation Information Management System, which is operated by Alberta Tourism, Parks and Recreation.

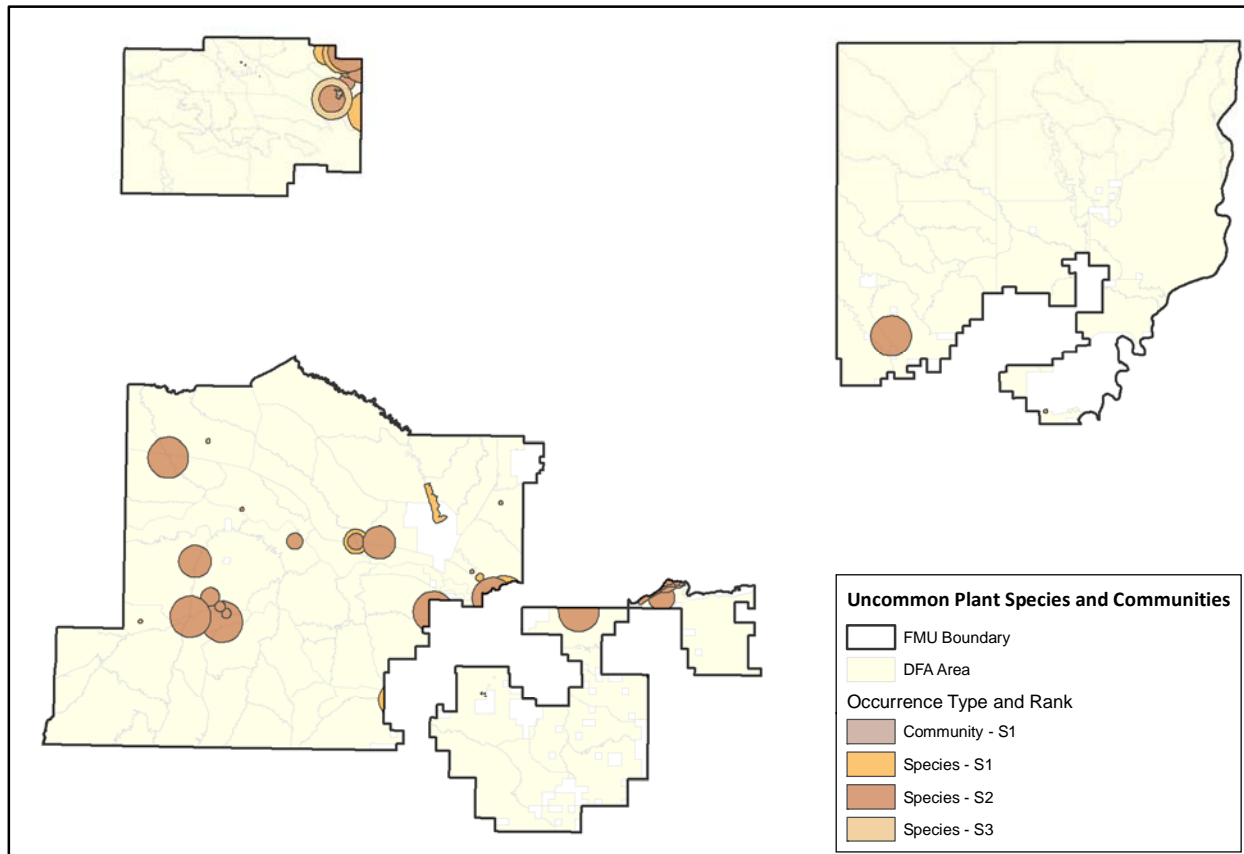
Community / Species Occurrence Scientific - Common Name by Rank	Count
Ecological Community Conservation Rank Occurrences	
<i>S1 - May be rare and local throughout its range or found locally, even abundantly, in a restricted range.</i>	
Carex limosa / Sphagnum jensenii - mud sedge / pendant branch peat moss	1
Species Conservation Rank Occurrences	
<i>S1 - Known from 5 or fewer occurrences or especially vulnerable to extirpation because of other factors.</i>	
Carex adusta - browned sedge	1
Carex arcta - narrow sedge	2
Cladonia umbricola - shaded cladonia	1
Deschampsia elongata - slender hair grass	1
Lophozia badensis - liverwort	1
Luzula acuminata - wood-rush	2
Mannia pilosa - liverwort	1
Riccardia palmata - liverwort	1
Scapania undulata - liverwort	1
Sparganium hyperboreum - northern bur-reed	1
<i>S1S2 - Refer to S1 and S2.</i>	
Fontinalis neomexicana - moss	2
Hygrohypnum molle - moss	1
Schistostega pennata - luminous moss	1
<i>S2 - Known from 20 or fewer occurrences or vulnerable to extirpation because of other factors.</i>	
Aloina brevirostris - short-beaked rigid screw moss	1
Aloina rigida - aloe-like rigid screw moss	1
Atrichum selwynii - moss	1
Blindia acuta - sharp-pointed weissia	1
Bryum algovicum - moss	1
Bryum uliginosum - moss	1
Carex heleonastes - Hudson Bay sedge	1
Carex lacustris - lakeshore sedge	2
Chaenotheca chrysocephala - stubble lichen	1
Cystopteris montana - mountain bladder fern	1
Dicranella subulata - awl-leaved fork moss	1
Glyceria elata - tufted tall manna grass	1
Heterodermia speciosa - powdered fringed lichen	1
Hygroamblystegium tenax - moss	1
Hygrohypnum ochraceum - moss	1
Hypocnomyce friesii - clam lichen	1
Juncus stygius var. americanus - marsh rush	1
Jungermannia atrovirens - liverwort	1
Lactuca biennis - tall blue lettuce	2
Monotropa hypopithys - pinesap	2
Pellia neesiana - liverwort	1
Phegopteris connectilis - northern beech fern	3
Physcia tenella - fringed rosette lichen	1
Pogonatum dentatum - hair-like pogonatum moss	4
Potamogeton strictifolius - linear-leaved pondweed	1
Ramalina obtusata - hooded ramalina	1
Rhizomnium magnifolium - moss	2
Salix commutata - changeable willow	1
Scapania paludicola - liverwort	1
Solorina spongiosa - fringed chocolate chip lichen	1
Sphagnum compactum - neat bog moss	1
Sphagnum lindbergii - Lindberg's bog moss	1
Splachnum vasculosum - large-fruited splachnum moss	2
Stellaria crispa - wavy-leaved chickweed	3
Tayloria serrata - slender splachnum moss	1
<i>S2? - Refer to S2.</i>	
Brachythecium rutabulum - moss	1
<i>S2S3 - Refer to S2 and S3.</i>	
Tritomaria scitula - liverwort	1
<i>S2S4 - Refer to S2 (recognizing S4, which is generally considered secure).</i>	
Lecania dubitans - bean-spored rim-lichen	1
Melanohalea multispora - many-spored camoflage lichen	1
<i>S3 - Known from 100 or fewer occurrences, or somewhat vulnerable due to other factors.</i>	
Splachnum luteum - yellow collar moss	1
Splachnum rubrum - red collar moss	1
<i>S3? - Refer to S3.</i>	
Chrysosplenium iowense - golden saxifrage	1
<i>SU - Unrankable.</i>	
Orthotrichum affine - moss	1

(ii) The percent of the identified uncommon plant communities on the DFA that have been disturbed by forestry operations.

No known forestry operation disturbances have been identified on the DFA.

(iii) Maps showing distribution of identified uncommon plant communities.

Refer to the following map for a graphical representation of the location of uncommon plant species and communities on the DFA, as sourced from the Alberta Conservation Information Management System in December 2013. Note that the areas shown for the individual occurrence instances represent an area where one or more occurrences were observed, and not that an uncommon plant species or community occupies the whole area shown spatially.



### Commentary

N/A

<b>VOIT 7 – Area of unsalvaged burned forest.</b>	
Target	Adhere to Alberta government's Fire Salvage Directive and Firesmart objectives when conducting fire salvage (refer to detailed targets identified for this VOIT in the Commitments Chapter of the 2007-16 FMP).
Stewardship Reporting	(i) Number of fires that occurred on the DFA and their associated areas. (ii) Number of fires and the area of those fires in which salvage operations were conducted.

### Reporting

*(i) Number of fires that occurred on the DFA, and their associated areas.*

The number of fires and their associated area on the DFA are summarized in the following table.

Timber Year	# Fires	Area (ha)		
		Burn	Partial	Total
2007	2	5	-	5
2008	3	20	-	20
2009	4	3,427	576	4,003
2010	3	170	-	170
2011	4	361	-	361
<b>Total</b>	<b>16</b>	<b>3,983</b>	<b>576</b>	<b>4,559</b>

*(i) Number of fires and the area of those fires in which salvage operations were conducted.*

No salvage operations were conducted in burned areas, during the reporting period.

### Commentary

N/A.

<b>VOIT 8 – Area of unsalvaged blowdown forest.</b>	
Target	Adhere to the following merchantable blowdown retention values: 1) Blowdown patch >= 100 ha: > 10% merchantable blowdown trees in patches 10-100 ha; > 5% merchantable blowdown trees in small patches or single trees; and 2) Blowdown patches < 100 ha: > 10% merchantable blowdown trees in small patches or single trees.
Stewardship Reporting	Reporting aspects as defined in the blowdown salvage strategy that Millar Western will develop.

### Reporting

Millar Western has not developed or implemented a generic blow-down strategy due to the infrequency of blow-down events on the DFA and the unique circumstances that would likely be present for each event. Instead, Millar Western will work with the Alberta government to develop situation-specific plans, should any significant blowdown events occur. Any resulting plans will be consistent with the retention targets defined within the FMP (see above target) or as otherwise approved by Alberta government.

During the 2007-11 timber years, no blowdown events occurred.

### Commentary

N/A

**VOIT 9 – Number of non-conformance incidents with FMA Operating Ground Rules or Alberta government approved Millar Western riparian management strategy.**

Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below.

Timber Year	Count	Reference
2007	0	N/A
2008	2	38, 39
2009	2	65, 70
2010	0	N/A
2011	3	103, 115, 119

<b>ID</b>	38
<b>Reported Date/Time</b>	September 12, 2008
<b>Location</b>	OCE-234
<b>Description</b>	A feller buncher harvested timber outside of a block boundary and in a riparian buffer. The associated investigation revealed that the following associated SOPs were not adhered to: 1) block boundary marking (ribboning), 2) pre-work (walking boundary prior to commencing operations) and 3) stop work. AESRD assessed a penalty of \$3,069.76 against Millar Western for this incident.
<b>Remedial Measures</b>	Reported to AESRD
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	39
<b>Reported Date/Time</b>	December 10, 2008
<b>Location</b>	OCE-202
<b>Description</b>	A bulldozer completing site preparation treatment crossed an ephemeral stream at a location other than the designated crossing, resulting in minor isolated disturbance to the riparian area. The associated investigation revealed that the operator did not adhere to the information provided on the pre-work map, which clearly indicated the location of the ephemeral stream's designated crossing location and the area designated as 'Stay Out' for the purposes of riparian area protection.
<b>Remedial Measures</b>	Repaired stream channel
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	65
<b>Reported Date/Time</b>	September 2, 2009
<b>Location</b>	OCE-176
<b>Description</b>	A section of road (80 meters long) was constructed within the 30-meter riparian buffer of a small permanent stream. The associated investigation revealed that the road right-of-way boundary was laid out within the riparian buffer and that the consultant who completed the work did not adhere to the operating ground rules that define the required buffer specifications.
<b>Remedial Measures</b>	Review training/OGRs
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	70
<b>Date/Time</b>	November 12, 2009
<b>Location</b>	NFR-5
<b>Description</b>	A feller buncher crossed an intermittent stream in a location that was not a designated crossing. The associated investigation revealed that the operator did not notice the ribbons identifying the stream location.
<b>Remedial Measures</b>	Contractor to provide action plan to prevent a similar event from recurring in the future.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	103
<b>Date/Time</b>	August 29, 2011
<b>Location</b>	WWF-203
<b>Description</b>	A feller buncher crossed an intermittent stream in a location that was not a designated crossing. The operator thought that they were crossing an ephemeral channel, and installed a satisfactory log fill for such purposes. Once the operator crossed the channel, they realized that they were not in the location that they thought. The intermittent stream was not flagged with blue ribbon as per Millar Western's policy.
<b>Remedial Measures</b>	The log fill was removed and replaced with a temporary skid bridge. Millar Western reviewed the block's watercourse details with the harvest operators.
<b>Policy/Procedure Changes</b>	Policies regarding pre-work were reviewed, but no changes were required. Millar Western created a new process for ensuring that final ribboning is complete for each block prior to harvesting pre-work meetings.



<b>ID</b>	115
<b>Date/Time</b>	December 8, 2011
<b>Location</b>	CLN-232
<b>Description</b>	A feller buncher harvested within a stream riparian buffer (10 x 30 m portion). The operator did not notice the ribbons marking the riparian (no-harvest) boundary and proceeded harvest within the boundary. Upon realizing the mistake, the operator stopped work and notified the supervisor.
<b>Remedial Measures</b>	Reviewed incident with employees and operators. Reviewed maps with operators to confirm that they understand the maps and can clearly interpret them. Prepared action plan with contractor to prevent such events in the future.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	119
<b>Date/Time</b>	January 10, 2012
<b>Location</b>	DRP-143
<b>Description</b>	A feller buncher harvested within a stream riparian buffer. The operator was confused by old ribbon associated with an adjacent block, and did not rely on the pre-work map to identify the correct harvest areas.
<b>Remedial Measures</b>	Reviewed operating procedures with contractor, including highlighting areas that contain riparian areas or other significant features. Confirmed policy that old block layout ribbon is to be removed prior to completing the pre-work meeting with the contractor.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

**Commentary**

N/A

<b>VOIT 10 – Volume and area harvested in riparian areas under Alberta government approved Millar Western Riparian Management Strategy.</b>	
Target	Harvest <= 25% volume/area annually in riparian areas adjacent to harvest areas.
Stewardship Reporting	To be defined upon completion of riparian management strategy.

**Reporting**

During the reporting period, Millar Western elected not to pursue harvest operations in riparian buffers and, therefore, has not developed a riparian management strategy.

**Commentary**

N/A

**VOIT 11 – Percent of FMU AAC residual structure (living and dead), within a harvest area, representative of the status (living/dead), size and species distribution of the overstorey trees by operating compartment.**

Target	Retain 1% of total AAC volume as residual structure annually, by FMU, distributed over selected operating compartments.
Stewardship Reporting	Volume and percentage of AAC of live merchantable structure retention left on the DFA, by compartment and FMU by timber year. For clarity, Millar Western will not report on dead volume structure retention, even though it will exist.

### Reporting

Annual structure retention associated with Millar Western harvest blocks (complete retention information was not available for the other operators on the DFA) is presented below, by FMU and operating compartment. The tables summarize coniferous and deciduous retention and harvest volumes (theoretical forest management plan volumes) and the proportion of the retention volume of the total volume (retention + harvest volume).

#### FMU W11

<b>W11</b>		<b>Theoretical Volume by Type</b>		
<b>Timber Year</b>	<b>Compt.</b>	<b>Retention Vol (m<sup>3</sup>)</b>	<b>Harvested Vol (m<sup>3</sup>)</b>	<b>% Retention</b>
2007	TIM	0.0	2,472	0.00
	WLK	1,647	50,135	3.18
	<b>Total</b>	<b>1,647</b>	<b>52,607</b>	<b>3.04</b>
2008	FLC	113	33,594	0.34
	TIM	8	5,858	0.13
	<b>Total</b>	<b>121</b>	<b>39,452</b>	<b>0.31</b>
2009	NFR	1,122	48,750	2.25
	<b>Total</b>	<b>1,122</b>	<b>48,750</b>	<b>2.25</b>
2010	FLC	24	25,891	0.09
	TIM	1,587	57,860	2.67
	<b>Total</b>	<b>1,611</b>	<b>83,751</b>	<b>1.89</b>
2011	FLC	2,348	29,246	7.43
	SFR	119	83,736	0.14
	TIM	22	5,953	0.37
	<b>Total</b>	<b>2,490</b>	<b>118,935</b>	<b>2.05</b>
<b>W11</b>	<b>Total</b>	<b>6,991</b>	<b>343,496</b>	<b>1.99</b>

FMU W13

<b>W13</b>		<b>Theoretical Volume by Type</b>		
<b>Timber Year</b>	<b>Compt.</b>	<b>Retention Vol (m<sup>3</sup>)</b>	<b>Harvested Vol (m<sup>3</sup>)</b>	<b>% Retention</b>
2007	OCE	2,072.3	267,277	0.77
	SAK	514	47,066	1.08
	<b>Total</b>	<b>2,586</b>	<b>314,343</b>	<b>0.82</b>
2008	AHL	726.0	19,282	3.63
	OCE	6,842	405,821	1.66
	PRV	1,237.4	10,231	10.79
	TCK	545.2	100,570	0.54
	TOH	149	4,881	2.95
	<b>Total</b>	<b>9,499</b>	<b>540,784</b>	<b>1.73</b>
2009	GLK	3,361.1	223,546	1.48
	OCE	4,089	77,823	4.99
	TCK	8,120.9	382,842	2.08
	TOH	324.2	39,645	0.81
	<b>Total</b>	<b>15,895</b>	<b>723,855</b>	<b>2.15</b>
2010	BCK	1,137.8	176,216	0.64
	GRC	0	116	0.08
	NOG	1,413.7	154,776	0.91
	TCK	1,344.9	57,397	2.29
	TOH	1,829	232,651	0.78
	WWF	470.7	33,126	1.40
	BLK	0	28,657	0.00
	<b>Total</b>	<b>6,196</b>	<b>682,939</b>	<b>0.90</b>
2011	BCK	164.3	52,380	0.31
	NOG	1,258	153,426	0.81
	TOH	1,106.7	142,600	0.77
	WWF	2,697.4	43,359	5.86
	<b>Total</b>	<b>5,227</b>	<b>391,765</b>	<b>1.32</b>
<b>W13</b>	<b>Total</b>	<b>39,403.8</b>	<b>2,653,686</b>	<b>1.46</b>

**Commentary**

N/A

<b>VOIT 12 – Percent of harvested area, by FMU, with downed woody debris (DWD) volume equivalent to pre-harvest conditions, by FMU.</b>	
Target	>= 75% of annual harvest area with DWD equivalent to pre-harvest conditions, by FMU.
Stewardship Reporting	Actual percent of harvested area in DFA in which DWD levels are equivalent to, or greater than, pre-harvest levels (i.e. the percent of the area harvested in which neither brush raking or prescribed burning were implemented).

**Reporting**

The annual percent of total harvest area on which DWD-reducing treatments were not applied is presented below.

*FMU W11*

<b>W11</b>	<b>Area Harvested</b>	<b>Harvest Area NOT Treated with DWD Reducing Treatments</b>	
<b>Timber Year</b>	<b>(ha)</b>	<b>(ha)</b>	<b>(%)</b>
2007	642	625	97.3
2008	770	770	100.0
2009	665	665	100.0
2010	511	511	100.0
2011	972	972	100.0
<b>Total</b>	<b>3,560</b>	<b>3,542</b>	<b>99.5</b>

*FMU W13*

<b>W13</b>	<b>Area Harvested</b>	<b>Harvest Area NOT Treated with DWD Reducing Treatments</b>	
<b>Timber Year</b>	<b>(ha)</b>	<b>(ha)</b>	<b>(%)</b>
2007	1,525	1,525	100.0
2008	2,005	2,005	100.0
2009	2,798	2,798	100.0
2010	2,770	2,770	100.0
2011	1,568	1,568	100.0
<b>Total</b>	<b>10,664</b>	<b>10,664</b>	<b>100.0</b>

**Commentary**

N/A

<b>VOIT 13 – Number of non-conformances incidents with FMA OGRs in relation to identified sensitive sites located on the DFA.</b>	
Target	Zero (0) annual incidents of non-conformance.
Annual Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below:

<b>Timber Year</b>	<b>Count</b>	<b>Reference</b>
2007	0	N/A
2008	0	N/A
2009	0	N/A
2010	0	N/A
2011	0	N/A

**Commentary**

N/A

VOIT 14 – Number of non-conformance incidents with Millar Western's OGRs or Code of Practice for Water Course Crossings, by FMU.	
Target	Zero (0) annual incidents of non-conformance.
Annual Reporting	i) The number of crossings by type on the DFA ii) Number of non-conformance incidents and summary of each.

**Reporting**

*(i) The number of crossings by type on the DFA*

Water course crossing information is addressed within the company's Annual Operating Plans (AOP).

*(ii) Number of non-conformance incidents and summary of each*

The number of non-conformance incidents and a summary of each are presented below:

Timber Year	Count	Reference
2007	0	N/A
2008	1	37
2009	1	76
2010	1	85
2011	5	104, 122(3), 124

Note – Incident #122 from the 2011 timber year contains a number of non-conformance incidents that were identified to Millar Western by Alberta Environment and Sustainable Resources Development (AESRD), following one of AESRD's inspections.

<b>ID</b>	37
<b>Date/Time</b>	August 27, 2008
<b>Location</b>	OCE-165
<b>Description</b>	A bulldozer crossed a small permanent stream without a crossing. The associated investigation revealed that the operator had not received Environmental Management System training prior to starting work with the contracting company.
<b>Remedial Measures</b>	Report to AESRD
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	76
<b>Date/Time</b>	January 14, 2010
<b>Location</b>	TCK-432
<b>Description</b>	A contractor constructed a temporary ephemeral stream crossing without a separation layer. The associated investigation revealed that the contractor did not adhere to Millar Western's required standards.
<b>Remedial Measures</b>	Reclaim with extra caution and attention.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	85
<b>Date/Time</b>	June 24, 2010
<b>Location</b>	GLK/SLC300 road
<b>Description</b>	Soil from the native timber bridge dirt cap was deposited in the channel of a small permanent stream. The associated investigation revealed that the contractor who constructed the crossing did not adhere to Millar Western's required standards.
<b>Remedial Measures</b>	Soil removed to prevent any possible sedimentation.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	104
<b>Date/Time</b>	September 16-18, 2011
<b>Location</b>	UMR-37
<b>Description</b>	An insufficient crossing was installed, resulting in its failure and ultimate disruption of stream flow. Two eight-wheeled skidders were drag scarifying the block and their repeated use of the crossing, combined with the ground moisture present due to precipitation, was more than the crossing was able to accommodate. The operators did not comply with Millar Western's stop work procedures when it was evident that the crossing had failed.
<b>Remedial Measures</b>	Removed the crossing's structural material (culvert, logs, fill) and return the stream channel to its natural state.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

<b>ID</b>	122 (i)
<b>Date/Time</b>	August 14, 2011
<b>Location</b>	LOC840286 (8-24-66-15-W5)
<b>Description</b>	Culvert wingwalls situated within the watercourse channel.
<b>Remedial Measures</b>	Monitor the wingwalls on this culvert each spring and fall to assess any change in condition. Assess and determine the long-term need for this crossing, then develop a plan for upgrading or reclamation.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

<b>ID</b>	122 (ii)
<b>Date/Time</b>	August 14, 2011
<b>Location</b>	LOC840286
<b>Description</b>	Hanging and plugged culverts located along the LOC.
<b>Remedial Measures</b>	Removed the hanging and plugged culverts along the LOC.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.



<b>ID</b>	122 (iii)
<b>Date/Time</b>	August 14, 2011
<b>Location</b>	LOC840286 (2-24-66-15-W5)
<b>Description</b>	A logfill and culvert were left in an un-named watercourse, and no authority had been given for this type of structure at this location.
<b>Remedial Measures</b>	Removed the logfill and culvert from this location.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

<b>ID</b>	124
<b>Date/Time</b>	May 12, 2011
<b>Location</b>	LOC2082
<b>Description</b>	A plugged culvert cross drain and heavy precipitation resulted in improper ditch drainage, erosion, the failure of a ditch block and ultimately the accumulation of silt within the flood plain of an un-named watercourse. The frozen ground conditions at the time prevented absorption of the water, limiting the flow of the water and silt to the watercourse.
<b>Remedial Measures</b>	Replaced the existing culvert with a larger diameter culvert to handle the higher volumes of water. Re-built ditch block that failed; re-contoured the ditchline; and seeded the exposed soils.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

**Commentary**

N/A

<b>VOIT 15 – Area of suitable habitat within each FMU for each biodiversity assessment species.</b>	
Target	At the start of the 2017 timber year, achieve the area, and proportion of area, of suitable habitat for the biodiversity assessment species defined in Tables 16 and 17 in the Commitments Chapter of the 2007-16 FMP.
Stewardship Reporting	Summary of adherence to the SHS.

**Reporting**

The summary of operational adherence to the 20-year SHS is presented below, and includes all operators where information was available.

Compt.	Harvest Area			20 Year SHS Area (ha)	% Variance - Proportion of Harvest of SHS Area	
	In SHS (ha)	Not in SHS (ha)	Total (ha)		In SHS	Not In SHS
AHL	0	67	67	240	0.0	27.9
BCK	152	796	948	2,824	5.4	28.2
BLK	12	84	95	1,610	0.7	5.2
CRC	105	154	259	921	11.4	16.7
FLC	795	302	1,096	1,579	50.3	19.1
GLK	205	686	891	1,357	15.1	50.5
GRC	0	19	19	959	0.0	2.0
NFR	423	30	453	2,431	17.4	1.2
NOG	795	400	1,195	1,789	44.5	22.4
OCE	2,300	526	2,826	3,695	62.2	14.2
PRV	206	33	239	3,861	5.3	0.9
SAK	125	113	238	2,076	6.0	5.4
SFR	725	133	858	1,309	55.4	10.1
TCK	1,379	671	2,050	1,771	77.8	37.9
TIM	668	175	842	3,794	17.6	4.6
TOH	1,078	410	1,488	4,996	21.6	8.2
WLK	255	55	310	1,141	22.4	4.8
WWF	142	208	350	581	24.4	35.7
Total	9,365	4,860	14,225	36,936	25.4	13.2

For those compartments in which the actual area harvested outside of the 20-year SHS stands is greater than 20%, the factors contributing to the variance are identified below.

#### *AHL*

The area harvested in this compartment was undertaken as part of a research project (Study of Forestry Amphibians).

#### *BCK*

As a result of implementing the Healthy Pine Strategy on the FMA, the amount of incidental deciduous generated was significantly reduced. In an effort to increase deciduous volumes, pure D stands not contained within the SHS were targeted within this compartment.

#### *GLK*

Stands outside of the SHS in this compartment were harvested due to their close proximity to Millar Western's mills. The Alberta government, agreed with this harvesting approach, recognizing the challenging economic conditions that Millar Western and other forest products companies were experiencing through the 2008-10 timber years.

#### *NOG, TCK and WWF*

The variance in these compartments was due to the implementation of the Healthy Pine Strategy. Pine leading stands were targeted for harvest, while spruce and spruce-aspen stands were left for future timber supply.

### **Commentary**

Following the submission and approval of Millar Western's 2007-16 FMP, the Alberta government and Millar Western exchanged correspondence regarding the need for additional Biodiversity Assessment Project (BAP) analysis. The Alberta government subsequently advised Millar Western that further BAP analysis was not required and requested that Millar Western note this decision in the next stewardship report.

<b>VOIT 16 – Number and area (ha) of in-situ genetic conservation areas.</b>	
Target	Establish zero (0) genetic conservation areas for each seed zone conforming with Section 20 of Standards for Tree Improvement in Alberta.
Stewardship Reporting	(i) The number of in-situ conservation areas required in each seed zone, and the number established in the DFA. (ii) Map showing the location(s) of any existing in-situ conservation areas.

**Reporting**

*(i) The number of in-situ conservation areas required in each seed zone, and the number established in the DFA.*

The number of in-situ conservation areas required in each seed zone still needs to be determined by the Region 'i' partner organizations and the Alberta government. No in-situ conservation areas have been established on the DFA to date.

*(ii) Map showing the location(s) of any existing in-situ conservation areas.*

There are no existing in-situ conservation areas in the DFA.

**Commentary**

N/A

<b>VOIT 17 – Number of provenances and genetic lines in ex-situ gene banks and trials.</b>	
Target	Active ex-situ conservation program for all Controlled Parentage Program plan species in cooperation with the Alberta government.
Stewardship Reporting	The number of ex-situ conservation areas required in each seed zone and the number and spatial location of existing areas, in cooperation with the Alberta government.

**Reporting**

The number of ex-situ conservation areas required in each seed zone still needs to be determined by the Region 'i' partner organizations and the Alberta government. No ex-situ conservation areas have been established to date.

**Commentary**

N/A

<b>VOIT 18 – Stakeholder consultation regarding protected areas as identified through government processes.</b>	
Target	Maintain ongoing consultation with relevant protected areas agencies.
Stewardship Reporting	(i) Whether any new parks or protected areas are being proposed within or adjacent to the DFA, as confirmed by the Alberta government. (ii) Summary of consultation and outcomes related to proposed or existing parks and protected areas within or adjacent to the DFA.

**Reporting**

*i) Whether any new parks or protected areas are being proposed within or adjacent to the DFA, as confirmed by the Alberta government.*

No parks or protected areas were proposed within or adjacent to the DFA.

ii) *Summary of consultation and outcomes related to proposed or existing parks and protected areas within or adjacent to the DFA.*

As no new parks or protected areas were proposed during the reporting period, no additional consultation was undertaken; therefore, there are no outcomes on which to report.

### Commentary

N/A

<b>VOIT 19 – Annual percent of satisfactory regenerated surveys (establishment surveys and performance surveys) by company and FMU.</b>	
Target	100 % of establishment surveys achieve Satisfactorily Regenerated (SR) status and 100 % of performance surveys achieve Free-to-grow (FTG) status.
Stewardship Reporting	Summary, by FMU and forestry operator, the amount of area surveyed and the results of the surveys.

### Reporting

The results of the annual establishment and performance surveys are presented below and are consistent with the requirements of provincial standards. The results for other operators are present where available.

NOTE – Some of the area stated falls into the NSR (not satisfactorily restocked) class. This classification is based on an establishment survey completed at a specific point in time, and this area along with all the other harvested areas, will be re-assessed at the timing of the performance survey. Following the establishment survey, areas deemed to be deficient in terms of their stocking or vigor may be prescribed additional treatments to address deficiencies.

*Survey Result Code: SR – Satisfactorily Restocked; CSR – Conditionally Satisfactorily Restocked; NSR – Not Satisfactorily Restocked; FTG – Free To Grow; PSC – Performance Survey Complete.*

*Operators Codes: MWFP – Millar Western; CRPA – Community Reforestation Partnership Association; W13M – Miscellaneous Timber Use Operators.*

#### FMU W11 – Establishment Surveys

Timber Year	Operator	Area Surveyed (ha)	Area by Survey Results (ha)		
			CSR	NSR	SR
2007	CRPA	710	33	275	402
	MWFP	115	0	0	115
	Total	825	33	275	517
2008	MWFP	576	0	0	576
2009	No surveys completed.	0	0	0	0
2010	No surveys completed.	0	0	0	0
2011	MWFP	21	0	0	21
Grand Total		1,422	33	275	1,114

*FMU W13 – Establishment Surveys*

Timber Year	Operator	Area Surveyed (ha)	Area by Survey Results (ha)		
			CSR	NSR	SR
2007	MWFP	4,965	0	93	4,872
	W13M	410	0	13	398
	Total	5,375	0	106	5,269
2008	MWFP	1,551	0	156	1,395
	W13M	223	0	24	199
	Total	1,774	0	180	1,594
2009	MWFP	1,083	0	124	959
	W13M	118	0	20	98
	Total	1,201	0	144	1,057
2010	MWFP	2,731	0	2	2,729
	W13M	34	0	0	34
	Total	2,765	0	2	2,763
2011	MWFP	1,488	0	108	1,380
	Grand Total	12,603	0	540	12,063

*FMU W11 – Performance Surveys*

Timber Year	Operator	Area Surveyed (ha)	Area by Survey Results (ha)	
			FTG	PSC
2007	No surveys completed.	0	0	0
2008	MWFP	35	35	0
2009	No surveys completed.	0	0	0
2010	No surveys completed.	0	0	0
2011	No surveys completed.	0	0	0
	Grand Total	35	35	0

*FMU W13 – Performance Surveys*

Timber Year	Operator	Area Surveyed (ha)	Area by Survey Results (ha)	
			FTG	PSC
2007	MWFP	152	152	0
2008	MWFP	659	659	0
2009	MWFP	2,617	0	2,617
	W13M	91	0	91
	Total	2,708	0	2,708
2010	MWFP	58	0	58
2011	MWFP	11	0	11
	Grand Total	3,588	811	2,777

**Commentary**

These summaries include, where available, results from DFA operators other than Millar Western.

The relatively low area surveyed in 2010 and 2011 reflects Millar Western's approach of completing a significant survey program every third year. A substantial performance survey program was scheduled and undertaken in 2012, which will be reflected in the next stewardship report.

**VOIT 20 – Cumulative percent of satisfactory regenerated surveys (establishment and performance surveys) by company and FMU.**

Target	100 % of establishment surveys achieve Satisfactorily Regenerated (SR) status and 100 % of performance surveys achieve Free-to-grow (FTG) status.
Stewardship Reporting	Cumulative number of harvest blocks and areas in which regeneration surveys were conducted, by regeneration success, forestry operator and FMU.

**Reporting**

The cumulative number of harvest blocks and areas in which regeneration surveys were conducted are summarized below, by regeneration success, forestry operator and FMU, for the 2007-11 timber years. Where available, results for other operators are included.

NOTE – Some of the area stated falls into the NSR (not satisfactorily restocked) class. This classification is based on an establishment survey completed at a specific point in time, and this area along with all the other harvested areas, will be re-assessed at the timing of the performance survey. Following the establishment survey, areas deemed to be deficient in terms of their stocking or vigor may be prescribed additional treatments to address deficiencies.

*Survey Result Code: SR – Satisfactorily Restocked; CSR – Conditionally Satisfactorily Restocked; NSR – Not Satisfactorily Restocked; FTG – Free To Grow; PSC – Performance Survey Complete.*

*Operators Codes: MWFP – Millar Western; CRPA – Community Reforestation Partnership Association; W13M – Miscellaneous Timber Use Operators.*

*Establishment Surveys*

Operator	CSR		NSR		SR		Total	
	(#)	(ha)	(#)	(ha)	(#)	(ha)	(#)	(ha)
<b>W11</b>								
CRPA	1	33	13	275	14	402	28	710
MWFP	0	0	0	0	26	712	26	712
<b>W11 Total</b>	<b>1</b>	<b>33</b>	<b>13</b>	<b>275</b>	<b>40</b>	<b>1,114</b>	<b>54</b>	<b>1,422</b>
<b>W13</b>								
MWFP	0	0	28	483	430	11,334	458	11,817
W13M	0	0	7	56	73	729	80	786
<b>W13 Total</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>540</b>	<b>503</b>	<b>12,063</b>	<b>538</b>	<b>12,603</b>
<b>Grand Total</b>	<b>1</b>	<b>33</b>	<b>48</b>	<b>815</b>	<b>543</b>	<b>13,177</b>	<b>592</b>	<b>14,025</b>

*Performance Surveys*

Operator	FTG		PSC		Total	
	(#)	(ha)	(#)	(ha)	(#)	(ha)
<b>W11</b>						
MWFP	1	35	0	0	1	35
<b>W11 Total</b>	<b>1</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>35</b>
<b>W13</b>						
MWFP	37	811	123	2,686	160	3,497
W13M	0	0	12	91	12	91
<b>W13 Total</b>	<b>37</b>	<b>811</b>	<b>135</b>	<b>2,777</b>	<b>172</b>	<b>3,588</b>
<b>Grand Total</b>	<b>38</b>	<b>846</b>	<b>135</b>	<b>2,777</b>	<b>173</b>	<b>3,624</b>

**Commentary**

N/A

<b>VOIT 21 – Forestry Operator specific regenerated strata distribution percentage by subunit.</b>	
Target	At the start of the 2017 timber year, each operator to achieve their harvest area adjusted regenerated strata percent distribution defined in Table 20 and 21 of the Commitments Chapter of the 2007-16 FMP.
Stewardship Reporting	Regenerated area and percent by strata, forestry operator and FMU (Table 20 and 21 of the Commitments Chapter of the 2007-16 FMP).

### Reporting

The regenerated area (based on survey area with satisfactorily restocked status) and percent by strata, forestry operator and FMU are presented below.

*Operators Codes: MWFP – Millar Western; CRPA – Community Reforestation Partnership Association; W13M – Miscellaneous Timber Use Operators.*

#### FMU W11

W11 FMP Strata	Operator				Total	
	MWFP		CRPA			
	(ha)	%	(ha)	%	(ha)	%
AW	691	97	193	44	884	77
AP	-	0	-	0	-	0
AS	-	0	-	0	-	0
PA	-	0	-	0	-	0
SA	-	0	27	6	27	2
PL	-	0	194	45	194	17
SW	21	3	21	5	42	4
<b>Total</b>	<b>712</b>	<b>100</b>	<b>435</b>	<b>100</b>	<b>1,147</b>	<b>100</b>

#### FMU W13

W13 FMP Strata	Operator				Total	
	MWFP		W13M			
	(ha)	%	(ha)	%	(ha)	%
AW	601	5	-	0	601	5
AP	242	2	-	0	242	2
AS	308	3	205	28	513	4
PA	1,210	11	51	7	1,261	10
SA	707	6	171	23	878	7
PL	6,324	56	110	15	6,435	53
SB	96	1	-	0	96	1
SW	1,487	13	192	26	1,680	14
Undefined	357	3	-	0	357	3
<b>Total</b>	<b>11,334</b>	<b>100</b>	<b>729</b>	<b>100</b>	<b>12,063</b>	<b>100</b>

### Commentary

N/A

<b>VOIT 22 – Percent of change in managed landbase area.</b>	
Target	At the start of the 2017 timber year, < = 2.5% of managed landbase converted to non-timber production uses.
Stewardship Reporting	(i) The number of dispositions and the area of those dispositions withdrawn from the managed landbase of the DFA.  (ii) The number of dispositions and the area of those dispositions returned to the managed landbase of the DFA.

### Reporting

After investigating approaches to meet reporting requirements associated with this VOIT, Millar Western has concluded that it is not possible to generate accurate data without incurring extensive effort and significant expense. This is due to the fact that the DFA's managed landbase was developed using a disposition layer that was available 2004-05, when the FMP's landbase was assembled. Today, 10 years later, Millar Western captures disposition data using DIDS. These two spatial layers differ significantly, so much so that when the DIDS layer is intersected with the managed landbase, the layers do not align. This causes the area determined to be newly disposed from the managed landbase to be inflated.

Millar Western is therefore reporting on the gross DFA area (not the DFA managed landbase) under disposition as of the end of the 2011 timber year, by FMU and DFA area classification. This summary, presented below, reflects area that would have been removed from the DFA managed landbase, as well as newly disposed area.

FMU	DFA Classification	DFA Gross Area (ha)	Disposed Area (ha)	DFA Gross Area Disposed (%)
W11	FGL	316	4	1.4
W11	FMA	162,058	2,118	1.3
W11	GRL	3,424	3,263	95.3
W11 Total:		165,798	5,385	3.2
W13	FGL	3,305	60	1.8
W13	FMA	277,272	12,477	4.5
W13	GRL	6,774	6,397	94.4
W13	GRP	83	12	15.0
W13 Total		287,434	18,946	6.6
Grand Total		453,232	24,331	5.4

### Commentary

N/A

<b>VOIT 23 – Area affected by insects, disease or natural calamities as reported by Alberta gov't. and Millar Western.</b>	
Target	Report all identified areas where insect, disease or natural calamity affect an area >= 10 ha on the DFA.
Stewardship Reporting	The total area known to be affected by insect, disease and natural calamities, where individual occurrences >= 10 ha. Smaller areas of occurrence will be reported where information is available.

### Reporting

The following table shows the extent to which the DFA was affected by insects, disease and natural calamities during the reporting period, as per the Alberta government surveys and reports. This summary comprises all



severity categories and includes areas that may be < 10 ha in size. As explained in the Commentary section, the table excludes areas affected by the mountain pine beetle (MPB).

*Insects*

Timber Year	Insect	Area (ha)
2007	Bruce spanworm	1,013
	Large aspen tortrix	54,892
2008	Large aspen tortrix	3,164
2009	Bruce spanworm	30
2010	N/A - No survey results	N/A
2011	N/A - No survey results	N/A

*Diseases*

Timber Year	Disease	Area (ha)
2007	N/A - No survey results	N/A
2008	N/A - No survey results	N/A
2009	N/A - No survey results	N/A
2010	Lodgepole pine dwarf mistletoe	1,116
2011	N/A - No survey results	N/A

**Commentary**

While the MPB has been the most publicized and actively managed forest health concern since 2006, its presence on the DFA has been tracked by capturing points (individual trees) as opposed to significantly affected polygons (areas). For this reason, MPB is not captured in this VOIT. Refer to VOIT 24 for data specific to the MPB.

VOIT 24 – Percent of Rank 1 and Rank 2 mountain pine beetle susceptible stand area harvested.	
Target	By the start of the 2017 timber year, harvest a total of 2,504 ha (12%) in W11 and 15,477 ha (18%) in W13 of the 2007 Rank 1 and Rank 2 MPB rating class area.
Stewardship Reporting	(i) Annual and cumulative area harvested and the percent of harvest area in Rank 1 and Rank 2 stands on the managed landbase.  (ii) Variance between actual percent of harvest area within Rank 1 and Rank 2 stands and the stated target on the managed landbase.

**Re-statement of 2007 and 2017 metrics**

*2007 Rank 1 and Rank 2 area on managed landbase*

FMU	Managed Landbase		Rank 1		Rank 2	
	Ha		Ha	%	Ha	%
W11	89,507		0	0%	31,598	35%
W13	218,304		3,951	2%	106,013	49%
Total	307,811		3,951	1%	137,611	45%

*2017 Rank 1 and Rank 2 area on the managed landbase*

FMU	Managed Landbase		Rank 1		Rank 2	
	Ha		Ha	%	Ha	%
W11	89,507		0	0%	29,057	32%
W13	218,304		2,445	1%	91,877	42%
Total	307,811		2,445	1%	120,934	39%

## Reporting

(i) Annual and cumulative area harvested and the percent of harvest area in Rank 1 and Rank 2 stands on the managed landbase.

The annual and cumulative area harvested and the percentage of harvest area in Rank 1 and Rank 2 stands on the managed landbase is presented below, by FMU.

2011 Rank 1 and Rank 2 area on the managed landbase

FMU	Managed Landbase	Rank 1		Rank 2	
	Ha	Ha	%	Ha	%
W11	89,507	0	0%	31,297	35%
W13	218,304	3,277	2%	99,898	46%
Total	307,811	3,277	1%	131,195	43%

FMU W11 – Area harvested in Rank 1 and Rank 2 stands

W11 Timber Year	Total Area Harvested	Rank 1		Rank 2	
	Ha	Ha	%	Ha	%
2007	642	0	0.0%	48	7.5%
2008	770	0	0.0%	175	22.8%
2009	665	0	0.0%	35	5.3%
2010	511	0	0.0%	0	0.0%
2011	972	0	0.0%	42	4.3%
Total	3,560	0	0.0%	301	8.4%

FMU W13 – Area harvested in Rank 1 and Rank 2 stands

W13 Timber Year	Total Area Harvested	Rank 1		Rank 2	
	Ha	Ha	%	Ha	%
2007	1,525	20	1.3%	988	64.8%
2008	2,005	64	3.2%	1,158	57.7%
2009	2,798	112	4.0%	1,559	55.7%
2010	2,770	253	9.1%	1,524	55.0%
2011	1,568	225	14.4%	886	56.5%
Total	10,664	674	6.3%	6,115	57.3%

(ii) Variance between actual percent of harvest area within Rank 1 and Rank 2 stands and the stated target on the managed landbase.

Five-year targets were not defined; therefore, variances will be reported in the 2012-16 stewardship report.

## Supplemental Reporting

The metrics for this reporting item have been refined since submission and approval of the 2007-16 FMP. Therefore, in addition to reporting on the area of Rank 1 and Rank 2 stands, Millar Western is presenting the area harvested in stands considered highly vulnerable to MPB attack, for each FMU. These summaries are consistent with the approach used in the development of the Central Region Mountain Pine Beetle planning initiative.

*FMU W11 – Area harvested in high MPB vulnerable stands*

Timber Year	Managed LB	Area Harvested (ha)			% High Vulnerable Pine Harvest
		Conifer Containing Stands	High Vulnerable Pine Stands	Other Stands	
2007	642	352	0	352	0.0%
2008	770	333	0	333	0.0%
2009	665	206	0	206	0.0%
2010	511	14	0	14	0.0%
2011	972	92	0	92	0.0%
<b>Total</b>	<b>3,560</b>	<b>996</b>	<b>0</b>	<b>996</b>	<b>0.0%</b>

*FMU W11 – Area harvested in high MPB vulnerable stands*

Timber Year	Managed LB	Area Harvested (ha)			% High Vulnerable Pine Harvest
		Conifer Containing Stands	High Vulnerable Pine Stands	Other Stands	
2007	1,525	1,052	687	366	65.3%
2008	2,005	1,361	714	647	52.5%
2009	2,798	1,695	909	786	53.6%
2010	2,770	1,712	1,304	408	76.2%
2011	1,568	1,102	778	324	70.6%
<b>Total</b>	<b>10,664</b>	<b>6,923</b>	<b>4,392</b>	<b>2,531</b>	<b>63.4%</b>

**Commentary**

N/A

VOIT 25 – Percent of identified MPB infested stand area harvested.	
Target	Harvest 100% of the area identified as having "green" and "fall-red" MPB attacked trees, where economically feasible, on the managed landbase, or where authorized by the Alberta government.
Stewardship Reporting	Annual and cumulative area of the managed and gross landbase that have been identified as being infested with MPB, and the total area and % area that have been harvested.

**Reporting**

Neither the Alberta government nor Millar Western, has quantified the percentage of the DFA (managed and/or gross landbase) that has been infested by MPB. The Alberta government has conducted surveys to identify points where individual affected trees or clusters of affected trees exist, but, given the dispersed nature of these trees, affected areas (polygons) have not been captured. While this information is not available, VOIT 24 summarizes, by area and proportion of total harvest area, the MPB- susceptible stands that have been removed on the DFA.

**Commentary**

N/A

**VOIT 26 – Area of pure pine and mixedwood pine stands by ‘mature’ and ‘old’ seral stage.**

Target	At the start of the 2017 timber year, achieve the area of pure pine and mixedwood pine stands in the mature and old seral stages.
Stewardship Reporting	Summary of the amount of pure pine and mixedwood pine stands in the mature and old seral stages.

**Re-statement of 2007 and 2017 metrics**

2007

Pure / Mixedwood Pine Class	Species Stratum	W11 Area (ha)		W13 Area (ha)	
		Mature	Old	Mature	Old
Mixedwood pine	AP	833	14	2,950	51
	PA	834	0	2,892	56
	Total	1,667	14	5,842	106
Pure pine	PL	5,788	57	8,654	2,092
Grand Total		7,455	71	14,496	2,198

2017

Pure / Mixedwood Pine Class	Species Stratum	W11 Area (ha)		W13 Area (ha)	
		Mature	Old	Mature	Old
Mixedwood pine	AP	669	71	2,249	126
	PA	727	0	2,092	88
	Total	1,396	71	4,341	214
Pure pine	PL	4,896	137	5,310	1,103
Grand Total		6,292	208	9,651	1,317

**Reporting**

The area of pure pine and mixedwood pine stands in the mature and old seral stages on the managed landbase is presented below.

2011

Pure / Mixedwood Pine Class	Species Stratum	W11 Area (ha)		W13 Area (ha)	
		Mature	Old	Mature	Old
Mixedwood pine	AP	767	71	2,332	159
	PA	823	0	1,896	214
	Total	1,590	71	4,227	374
Pure pine	PL	5,953	143	7,923	1,936
Grand Total		7,544	214	12,151	2,310

**Commentary**

N/A

<b>VOIT 27 – Existence and implementation of a noxious weed program.</b>	
Target	Continue to maintain existing Noxious Weed Program, and revise where necessary following annual review.
Stewardship Reporting	(i) Summary of the result of all noxious weed inspections that are conducted as part of the Company's noxious weed program. (ii) Description of any significant changes to the Company's noxious weed program.

**Reporting**

*(i) Summary of the result of all noxious weed inspections that are conducted as part of the Company's noxious weed program.*

During the 2007-2011 timber years, Millar Western's approach to weed tracking and treatment was focused on finding and treating weeds, whereby Millar Western hired a vegetation management specialist to inspect its roads and treat weeds as they were encountered. While this approach was effective in dealing with the immediate risk posed by those weeds, Millar Western recognized that the process could be improved by incorporating spatial tracking to support monitoring and reporting.

*(ii) Description of any significant changes to the Company's noxious weed program.*

Building upon its experience, Millar Western implemented a new process for treating and tracking noxious weeds in 2012. Consisting of a revised standard operating procedure and supported by a spatial weed treatment and monitoring layer in the company's GIS, the new process will provide for stronger monitoring and reporting on weeds, which will be reflected in the next stewardship report.

**Commentary**

N/A

<b>VOIT 28 – Existence of programs to select and monitor amphibian and soil micro-organism indicator species.</b>	
Target	Continue Company support and participation in the SOFA and Micro-organism Study, and incorporate findings where applicable.
Stewardship Reporting	Summary of the progress of and findings associated with these projects, and where the findings have been incorporated into operational and strategic planning, when applicable.

**Reporting**

*SOFA*

The Study of Forest Amphibians' (SOFA) field monitoring component was completed in 2011, and Millar Western is awaiting the delivery of the final report from the FORWARD group project team. While the final report has not yet been delivered, Millar Western has been advised of the study's following conclusions:

- Boreal toads displayed a high degree of fidelity towards a wide variety of critical refuge microhabitats (these microhabitats may be selected for their relative humidity); and
- Forest harvest had little effect on the capture rate of any life history stage of three native amphibian species (in fact, the resulting open canopies may have favoured tadpole survival).

*Soil Micro-organism Study*

The FORWARD Project's Soil Micro-organism Study is complete and concluded that the biomass of soil microbial communities responsible for nitrogen cycling did not differ under newly harvested and older lodgepole pine stands

or between shallow and deeper soils. No alterations were made to strategic and operational planning as a result of the findings of this study.

**Commentary**

N/A

<b>VOIT 29 – Number of incidents of non-conformance with respect to bared area (roads and landings) within harvest areas.</b>	
Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below:

Timber Year	Count	Reference
2007	0	N/A
2008	0	N/A
2009	0	N/A
2010	0	N/A
2011	0	N/A

**Commentary**

N/A

<b>VOIT 30 – Number of incidents of non-conformance with respect to reportable soil erosion and slumping.</b>	
Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below:

Timber Year	Count	Reference
2007	0	N/A
2008	0	N/A
2009	0	N/A
2010	0	N/A
2011	4	122(2), 124, 125

<b>ID</b>	122 (i)
<b>Date/Time</b>	August 14, 2011
<b>Location</b>	LOC972152 (3-30-66-14-W5)
<b>Description</b>	Erosion within LOC right-of-way.
<b>Remedial Measures</b>	Re-contoured all areas of erosion accessible by equipment, and seeded all areas of erosion not accessible by equipment.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

<b>ID</b>	122 (ii)
<b>Date/Time</b>	August 14, 2011
<b>Location</b>	LOC972152 (11-30-66-14-W5)
<b>Description</b>	Erosion within LOC right-of-way.
<b>Remedial Measures</b>	Re-contoured all areas of erosion accessible by equipment, and seeded all areas of erosion not accessible by equipment.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

<b>ID</b>	124
<b>Date/Time</b>	May 12, 2011
<b>Location</b>	LOC2082
<b>Description</b>	A culvert plugged culvert cross drain and heavy precipitation resulted in improper ditch drainage, erosion, the failure of a ditch block and ultimately the accumulation of silt within the flood plain of an un-named watercourse. The frozen ground conditions at the time prevented absorption of the water, limiting the flow of the water and silt to the watercourse.
<b>Remedial Measures</b>	Replaced the existing culvert with a larger diameter culvert to handle the higher volumes of water. Re-built ditch block that failed, and re-contoured the ditchline and seeded the exposed soils.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

<b>ID</b>	125
<b>Date/Time</b>	May 16, 2011
<b>Location</b>	LOC1470
<b>Description</b>	Erosion within LOC right-of-way.
<b>Remedial Measures</b>	Replaced cross drains, rebuilt ditch blocks, re-contoured ditchlines and seeded exposed soils, along the length of the LOC.
<b>Policy/Procedure Changes</b>	Develop and implement risk-based road and crossing monitoring and inspection procedure. Develop and implement a road and crossing maintenance program that reflects the actions indicated in the inspection reports.

**Commentary**

N/A

<b>VOIT 31 – Number of incidents of non-conformance with respect to rutting in harvest areas.</b>	
Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below:

<b>Timber Year</b>	<b>Count</b>	<b>Reference</b>
2007	0	N/A
2008	0	N/A
2009	0	N/A
2010	0	N/A
2011	1	113

<b>ID</b>	113
<b>Date/Time</b>	November 7, 2011
<b>Location</b>	LMR-18
<b>Description</b>	Skidder created ruts (two 20 m long ruts, each approximately 90 cm in width), while attempting to free itself from a depression along the edge of an intermittent stream channel (no disturbance to the channel).
<b>Remedial Measures</b>	Repaired ruts following arrival of frozen ground conditions.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

**Commentary**

N/A



<b>VOIT 32 – Percent of eligible third order watersheds in which the annual average runoff coefficient value is &gt; 15% of the baseline condition.</b>	
<b>Target</b>	Zero (0) percent of the eligible third order watersheds exceed the baseline annual average runoff coefficient value by > 15 % in any period over the 200-year planning horizon.
<b>Stewardship Reporting</b>	(i) Modeled average RC value, for the eligible third order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average runoff coefficient value by > 15 %.  (ii) Percent of eligible third order watersheds that exceed the baseline annual average runoff coefficient value by > 15 %.

**Re-statement of forecasted 2017 metrics**

2017

<b>FMU</b>	<b># of watersheds in DFA</b>	<b># of watersheds with &gt; 90% area in DFA</b>	<b># of watersheds with C-coefficient value &gt; 15% above baseline</b>	<b>% of watersheds with C-coefficient value &gt; 15% above baseline</b>
W11	25	4	2	50.0%
W13	41	12	0	0.0%
<b>Total</b>	<b>66</b>	<b>16</b>	<b>2</b>	<b>12.5%</b>

**Reporting**

*(i) Modeled average RC value, for the eligible third order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average runoff coefficient value by > 15 %.*

The identity of the eligible third-order watersheds that exceeded the baseline annual average runoff coefficient by > 15%, and the percentage by which they exceeded the average (based on the actual harvesting at the end of the 2011 timber year), are presented below.

<b>Third Order Watershed #</b>	<b>% By which watershed exceeds baseline annual runoff coefficient (&gt;15%)</b>
31	16.9

*(ii) Percent of eligible third order watersheds that exceed the baseline annual average runoff coefficient value by > 15 %.*

The percentage of eligible third order watersheds that exceeded the baseline annual average runoff coefficient value by > 15% at the end of the 2011 timber year, based on actual harvesting results, is presented below.

<b>FMU</b>	<b># of watersheds in DFA</b>	<b># of watersheds with &gt; 90% area in DFA</b>	<b># of watersheds with C-coefficient value &gt; 15% above baseline</b>	<b>% of watersheds with C-coefficient value &gt; 15% above baseline</b>
W11	25	4	0	0.0%
W13	41	12	1	8.3%
<b>Total</b>	<b>66</b>	<b>16</b>	<b>1</b>	<b>6.3%</b>

**Commentary**

N/A

**VOIT 33 – Percent of eligible first order watersheds in which the annual average runoff coefficient value is > 50% of the baseline condition.**

Target	Maximum 5 % of the eligible first order watersheds exceed the baseline annual average runoff coefficient value by > 50 % and none exceed the baseline condition by 100 %.
Stewardship Reporting	(i) Modeled average RC value, for the eligible first order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average runoff coefficient value by > 50 %.  (ii) Percent of eligible first order watersheds that exceed the baseline annual average runoff coefficient value by > 50 %.

**Re-statement of forecasted 2017 metrics**

2017

FMU	# of watersheds in DFA	# of watersheds with > 50% area in DFA	# of watersheds with C-coefficient value > 50% above baseline	% of watersheds with C-coefficient value > 50% above baseline
W11	377	303	0	0.0%
W13	622	538	20	3.7%
Total	999	841	20	2.4%

**Reporting**

*(i) Modeled average RC value, for the eligible first order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average runoff coefficient value by > 50 %.*

The identity of the eligible first-order watersheds that exceeded the baseline annual average runoff coefficient by > 50%, and the percentage by which they exceeded the average (based on the actual harvesting at the end of the 2011 timber year), are presented below.

First Order Watershed #	% By which watershed exceeds baseline annual runoff coefficient (>50%)
161	51.3
422	50.2
496	102.7
640	53.6
656	56.5
2100	68.7
2096	150.0
2180	66.0
2186	57.1
2086	54.5
2056	61.0
2077	88.5
2079	55.2
2088	54.0
2104	50.1
2164	61.4
2089	53.7
2125	53.4
2175	75.0
2188	65.1

*(ii) Percent of eligible first order watersheds that exceed the baseline annual average runoff coefficient value by > 50 %.*

The percentage of eligible first-order watersheds that exceeded the baseline annual average runoff coefficient value by > 50% at the end of the 2011 timber year, based on actual harvesting results, is presented below.

FMU	# of watersheds in DFA	# of watersheds with > 50% area in DFA	# of watersheds with C-coefficient value > 50% above baseline	% of watersheds with C-coefficient value > 50% above baseline
W11	377	303	0	0.0%
W13	622	538	20	3.7%
Total	999	841	20	2.4%

**Commentary**

The 2011 (actual) summary results are identical to those forecasted for the start of the 2017 timber year; however, the actual watersheds differ between these two reporting periods.

VOIT 34 – Existence of research initiative to develop relationship between operations and water quality, and implementation of recommendations to mitigate negative impact on water quality.	
Target	Continue research initiative until at least 2012 and during this time develop relationships between forestry operations and water quality and incorporate relevant findings into strategic and operational planning.
Stewardship Reporting	(i) Status of the water quality research initiative. (ii) The recommendations that the Company has implemented for the purposes of mitigating impact on water quality due to forestry operations.

**Reporting**

*(i) Status of the water quality research initiative.*

The FORWARD II project was completed in February 2012.

*(ii) The recommendations that the Company has implemented for the purposes of mitigating impact on water quality due to forestry operations.*

Ultimately, the FORWARD I and II projects found that the operating ground rules and internal operating policies that Millar Western employs during their harvest planning and operations adequately mitigate negative impacts on water quality

**Commentary**

N/A

VOIT 35 – Riparian buffers maintained as outlined in FMA operational ground rules or Alberta government approved riparian management strategy.	
Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

Refer to VOIT 9.

**Commentary**

N/A

<b>VOIT 36 – Existence of carbon budget analysis on the Preferred Forest Management Strategy of the 2007 DFMP.</b>	
Target	Complete a carbon budget of the DFA as part of the 2007 DFMP.
Stewardship Reporting	Summary of any additional carbon budget analysis completed on the DFA.

**Reporting**

No further carbon budgeting or assessments have been completed on the DFA beyond those already provided in Appendix XV – Carbon Accounting on the DFA

**Commentary**

N/A

<b>VOIT 37 – Refer to VOIT 22.</b>	
Target	Refer to VOIT 22.
Stewardship Reporting	Refer to VOIT 22.

**Reporting**

N/A

**Commentary**

This VOIT is identified separately, as it is a Canadian Standards Association (CSA) Sustainable Forest Management (SFM) element; however, its substance is addressed entirely under VOIT 22.

<b>VOIT 38 – Compliance with Annex 1 of the Alberta Forest Management Planning Standard (April 2006), regarding the process for establishing appropriate annual allowable cuts (AACs).</b>	
Target	Receive Alberta government's approval of the AAC, and the AAC determination process for the DFA.
Stewardship Reporting	i) The Alberta government's response to the Company's AAC determination process and any necessary follow up actions that the Company is or will undertake. ii) Any re-calculation of AAC for the DFA that occurs prior to the 2017-26 DFMP, accompanied by the justification for the re-calculation.

**Reporting**

*(i) The Alberta government's response to the Company's AAC determination process and any necessary follow up actions that the Company is or will undertake.*

The Alberta government accepted Millar Western's AAC determination process and approved the resulting AAC values for the 2007-16 FMP (refer to Alberta government's Forest Management Plan Approval Decision – Millar Western Forest Products Ltd., Forest Management Agreement #9700034, dated April 16, 2008).

*(i) Any re-calculation of AAC for the DFA that occurs prior to the 2017 – 2026 DFMP, accompanied by the justification for the re-calculation.*

Millar Western did not undertake any re-calculation of the AACs provided in the approved 2007-16 FMP.

**Commentary**

N/A

<b>VOIT 39 – Adherence to communication initiatives related to non-timber commercial rights holders, as defined in the external communications section of the DFMP/SFMP Communication Implementation Plan.</b>	
Target	Adhere to relevant external communication initiatives related to non-timber commercial rights holders.
Stewardship Reporting	i) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success. ii) Summary of the stakeholder registry (the number of members by stakeholder class).

**Reporting**

*(i) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success.*

Regarding non-timber commercial rights holders, Millar Western employs a number of communications tools to ensure that activities are jointly coordinated, to minimize impacts on the environment and to pursue opportunities for cooperation (e.g., share infrastructure). For example, Millar Western reaches out to oil & gas companies operating in the vicinity of its planned activities, to make them aware of the scope of its work and to investigate access-sharing possibilities. The company also communicates directly with trappers operating within its DFA on an annual basis, to provide details of AOPs, gather feedback, and amend plans as necessary. Representatives of both the oil & gas industry and the Alberta Trappers Association serve on Millar Western's Public Advisory Committee, with meetings offering further occasions to discuss matters of mutual concern. As well, Millar Western holds annual open houses throughout its operating area, where all stakeholders are invited to view operating plans and provide input. Millar Western believes that, in combination, these mechanisms provide ample opportunities for non-timber commercial rights holders to participate in its integrated land management approach.

*(ii) Summary of the stakeholder registry (the number of members by stakeholder class).*

Refer to VOIT 44 for stakeholder registry summary.

**Commentary**

N/A

**VOIT 40 – Number of non-conformance incidents as per The Heritage Resources Act.**

Target	Zero (0) annual incidents of non-conformance.
Stewardship Reporting	Number of non-conformance incidents and summary of each.

**Reporting**

The number of non-conformance incidents and a summary of each are presented below.

Timber Year	Count	Reference
2007	0	N/A
2008	0	N/A
2009	1	81
2010	0	N/A
2011	0	N/A

<b>ID</b>	81
<b>Date/Time</b>	February 28, 2010
<b>Location</b>	GLK-5
<b>Description</b>	A feller buncher harvested trees within a heritage resource area. Trees with rails affixed to them were cut part way up the stem. The associated investigation revealed that the heritage resource area was not indicated on the pre-work map provided to the operator.
<b>Remedial Measures</b>	Ensure heritage sites are added to harvest pre-works and maps.
<b>Policy/Procedure Changes</b>	Policies reviewed, but no changes required.

**Commentary**

N/A

**VOIT 41 – Development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations.**

Target	By November 30, 2008, develop and implement process for identifying areas of high aesthetic value and for mitigating visual impacts resulting from forestry operations.
Stewardship Reporting	Progress on development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations.

**Reporting**

In the 2007 timber year, Millar Western implemented a standard operating procedure for identifying areas of high aesthetic value and for mitigating visual impact of harvest operations on the DFA (SOP - ENV – 016 Visually Sensitive Areas). Millar Western reviews its SOPs annually and updates them as required.

No further annual or stewardship reporting items are required for this VOIT.

**Commentary**

N/A

<b>VOIT 42 – Percent of Whitecourt FireSmart Community Zone area in the ‘extreme’ and ‘high’ Fire Behaviour Potential (FPB) rating categories.</b>	
Target	At the start of the 2017 timber year, limit the combined area in the ‘extreme’ and ‘high’ FBP rating category to 28 % (31,496 ha of the 110,901 ha) of the Whitecourt FireSmart Community Zone.
Stewardship Reporting	The actual area and percent change in the ‘high’ and ‘extreme’ FBP rating categories for the Whitecourt FireSmart Community Zone.

**Re-statement of 2007 and 2017 metrics**

The re-stated 2007 metrics are included in the actual reporting summary below. Millar Western worked with AESRD to assemble re-stated 2017 forecasted FBP metrics, but technical difficulties (software and operating system incompatibility issues) prevented the ability to complete this.

**Reporting**

The actual area and percentage change in the ‘high’ and ‘extreme’ FBP rating categories for the Whitecourt FireSmart Community Zone are presented, along with the re-stated 2007 metrics below (updated to reflect the re-submitted landbase and SHS).

FBP Value	FBP Description	Assessed Ha	2007		2011	
			Ha	%	Ha	%
31 - 100	High & Extreme	45,821	14,707	32.10%	14,560	31.78%

**Commentary**

This analysis was completed by AESRD using updated (2011 timber year) harvest spatial data provided by Millar Western. AESRD’s analysis was completed on the portion of the Whitecourt FireSmart Community Zone that intersects with the Millar Western DFA, whereas the analysis completed by Millar Western for the 2007-16 FMP, was undertaken for the entire Whitecourt FireSmart Community Zone.

<b>VOIT 43 – Percent of DFA area in the ‘extreme’ and ‘high’ Fire Behaviour Potential rating categories.</b>	
Target	At the start of the 2017 timber year, limit the combined area in the ‘extreme’ and ‘high’ FBP rating category to 37 % (169,209 ha of the 452,471 ha) of the DFA.
Stewardship Reporting	The actual area and percent change in the ‘high’ and ‘extreme’ FBP rating categories for the DFA.

**Re-statement of 2007 and 2017 metrics**

The re-stated 2007 metrics are included in the actual reporting summary below. Millar Western worked with AESRD to assemble re-stated 2017 forecasted FBP metrics, but technical difficulties (software and operating system incompatibility issues) prevented the ability to complete this.

**Reporting**

The actual area and percentage change in the ‘high’ and ‘extreme’ FBP rating categories for the DFA are presented, along with the forecasted 2007 metrics below (updated to reflect the re-submitted landbase and SHS).

FBP Value	FBP Description	Assessed Ha	2007		2011	
			Ha	%	Ha	%
31 - 100	High & Extreme	442,774	177,938	40.19%	173,309	39.14%

### Commentary

This analysis was completed by AESRD using updated (2011 timber year) harvest spatial data, provided by Millar Western.

VOIT 44 – Adhere to communication initiatives related to the integration of other uses and timber management activities, as defined in the external communications section of the DFMP Communication Implementation Plan.	
Target	Adhere to communication initiatives related to the integration of other uses and timber management activities.
Stewardship Reporting	i) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success. ii) Summary of the stakeholder registry (the number of members by stakeholder class).

### Reporting

*(i) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success.*

In accordance with the DFMP Communication Plan, Millar Western has implemented a number of consultation and communication initiatives. It has, however, elected not to pursue some items in the initial plan for reasons described below.

- Stakeholder registry – After reviewing several systems, Millar Western implemented the Communications Tracker in 2011, an online tool developed by Silvacom to maintain stakeholder contact information and track communication/consultation events.
- ECSC – See VOITs 46 and 48.
- Permanent public advisory group – See VOIT 52.
- Harvesting and silviculture balancing groups – See Commitments 3 and 6.
- Annual open houses – Millar Western has held open houses in each of the years within the reporting period, as itemized below:
  - 2007 – Open house in Swan Hills (with Blue Ridge) on May 15 and BBQ, food bank drive and AOP open house in Whitecourt Walmart parking lot on May 26
  - 2008 – Whitecourt – May 26; Fox creek – May 27; Ft. Assiniboine – May 28; Swan Hills – May 29
  - 2009 – Open house and AFPA presentation, *Turning it Around*, at the Whitecourt Forest Interpretive Centre, May 19; open houses in Swan Hills on May 28 and Fox Creek on May 29
  - 2010 - Local forest companies Alberta Newsprint Company (ANC), Blue Ridge Lumber and Millar Western partnered with Alberta Environment and Sustainable Resource Development (AESRD) and the Towns of Whitecourt and Fox Creek to hold mountain pine beetle forums in conjunction with the presentation of their annual operating plans for 2010-11: Whitecourt – May 17; Fox Creek May 18
  - 2011 – Millar Western held in Fox Creek, Swan Hills and Whitecourt the week of May 10, 2011; plan summary provided on corporate website:
    - ([http://www.millarwestern.com/news\\_item.php?id=266](http://www.millarwestern.com/news_item.php?id=266))



- Corporate website – Millar Western uses its corporate website as a primary method of conveying company news to stakeholders. It maintained a virtual open house section on its website in conjunction for several years; however, the section was eventually disbanded when the website was redesigned in 2010, in favour of a more comprehensive environmental section.
- 24/7 hotline – this strategy was not implemented, as it was agreed that existing phone lines, including employee cellphones, provided sufficient contact points for stakeholders.
- Annual public sustainability reports – Millar Western produced a sustainability report in 2007 but suspended production until the 2010-11 operating year, due to resource constraints. The 2010-11 report provides statistical information going back to 2008, to bridge the intervening period. It is available on the company's corporate website. An environmental report for 2012-13 will be produced in 2014.
- Advertising/PR – the company has advertised various events and notices – open houses, information sessions, herbicide applications, road bans, employment opportunities and other information – in local media (newspaper and radio), on an as-required basis, to promote understanding and awareness of its operations. Many of these communications were also posted to its corporate website.
- Process for handling public concerns – the Communications Tracker was implemented as a means to ensure public concerns were recorded and addressed.
- Huestis Demonstration Forest – See VOIT 50.

*(ii) Summary of the stakeholder registry (the number of members by stakeholder class).*

Millar Western's stakeholder registry includes:

- Aboriginal communities – 11
- Media – 26
- Post-secondary educational institutions – 10
- Professional associations (e.g. CAPFT) – 4
- Public Advisory Committee – 17
- Trappers – 56

**Commentary**

Millar Western continues to seek ways to engage stakeholders in AOP discussions. It has experimented with various open house formats, for example, teaming up with other regional forest companies to hold joint open houses and/or offering information sessions around timely issues such as the economic downturn or MPB; however, despite these efforts, these events are, for the most part, poorly attended. Forest managers will work with Communications to try to determine more effective ways of sharing operating information with the public.

VOIT 45 – Difference between managed and natural stand yield.	
Target	No net decrease in stand yield from natural to managed stands.
Stewardship Reporting	(i) Progress on development and implementation of Alternative Regeneration Standards. (ii) Summary reports as defined as part of new Alternative Regeneration Standards, when implemented.

**Reporting**

*(i) Progress on development and implementation of Alternative Regeneration Standards.*

The Alberta government formally adopted and mandated the Reforestation Standard of Alberta (RSA) as the provincial standard on May 1, 2010.

*(ii) Summary reports as defined as part of new Alternative Regeneration Standards, when implemented.*

As part of the RSA requirements, Millar Western submits all RSA survey data and compiled results to the Alberta government, as the surveys are completed.

To date, Millar Western's survey results have shown strata Mean Annual Increment (MAI) values are in excess of strata level MAI targets (standards).

**Commentary**

N/A

VOIT 46 – Meet Alberta government's current expectations for aboriginal consultation.	
Target	Consult, at the community level, with designated representatives of aboriginal communities defined by Alberta government.
Stewardship Reporting	i) Updates to the aboriginal communities, and their specific contact individuals, that Millar Western communicates with as part of the planning process. ii) Summary of all Millar Western's initiatives directly focused at contacting and consulting with the aboriginal communities. All official communications will be summarized, and the key deliberations and achievements will be reported.

**Reporting**

*i) Updates to the aboriginal communities, and their specific contact individuals, that Millar Western communicates with as part of the planning process.*

Millar Western is required to consult with the following aboriginal communities for all Whitecourt forestry operations:

- Alexander First Nation
- Alexis Nakota Sioux Nation
- Aseniwuche Winewak Nation
- Driftpile First Nation
- Enoch Cree Nation #440
- Kapawe'no First Nation
- Sawridge First Nation
- Sucker Creek First Nation
- Sunchild First Nation
- Sturgeon Lake Cree Nation
- Swan River First Nation

*ii) Summary of all Millar Western's initiatives directly focused at contacting and consulting with the aboriginal communities. All official communications will be summarized, and the key deliberations and achievements will be reported.*

In keeping with the *Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development (May 16, 2005)*, and its *Guidelines adopted in 2006 and Amended in 2007*, Millar Western maintains regular contact with a number of First Nations communities whose traditional lands are located on or near the company's forest dispositions. Each year, the company provides each of these communities with consultation packages that outline the annual operating plan for the year ahead. Each package is accompanied by offers to meet in person with interested councils, to discuss issues and explore opportunities for cooperation.

**Commentary**

N/A

VOIT 47 – Contract opportunities provided to the Alexis Nakota Sioux Nation (i.e. logging and silviculture).	
Target	Provide contract opportunities to Alexis annually.
Stewardship Reporting	Summary of contract opportunities the Company offered to the Alexis, which of these contracts the Alexis undertook and the status of each of those contracts.

**Reporting**

A Forestry and Economic Development Agreement (FEDA) between the Alexis Nakota Sioux Nation and Millar Western Forest Products Ltd. was signed in 2004 and renewed in 2009. Under FEDA, the parties have agreed to work to achieve mutually agreeable terms for the participation of community members in forestry-related contract business opportunities, specifically those related to timber harvesting and/or tree planting.

Each year, Millar Western provides the Alexis with the opportunity to take on contracts for work associated with the harvesting of up to 50,000 m<sup>3</sup> of timber and the planting of up to 500,000 trees. During the reporting period, Alexis undertook contracts resulting in the volume deliveries and tree planting as follows:

Volume Deliveries		Trees Planted	
Timber Year	m <sup>3</sup>	Timber Year	Trees
2007	29,609	2007	0
2008	20,619	2008	0
2009	25,216	2009	0
2010	27,481	2010	276,000
2011	29,743	2011	0

**Commentary**

Millar Western will continue to encourage and support the Alexis community in taking on existing and, potentially, additional contract opportunities in future.

VOIT 48 – Number of Environmental Co-Stewardship Committee (ECSC) meetings.	
Target	Hold four (4) ECSC meetings annually.
Stewardship Reporting	i) Updates to ECSC membership. ii) Summary of meetings.

**Reporting**

*i) Membership update*

As part of the Forest Economic Stewardship Agreement (FEDA), an Environmental Co-Stewardship Committee (ECSC) was formed to provide a forum for consultation on forest resource development issues pertaining to Alexis traditional lands that overlap the Millar Western FMA. The ECSC consists of two Alexis representatives, two Millar Western representatives and one Alberta government representative, and its activities are supported by additional Millar Western personnel. At the conclusion of the reporting period, the current committee members were Darwin Alexis and Orlando Alexis, representing the Alexis Band Council, and Rob Stauffer and Marcel LeCoure, representing Millar Western; participation by an Alberta government representative was being provided on an as-needed basis.

*ii) Meeting summary*

The ECSC meets approximately four times a year to discuss annual operating plans, harvesting and planting contracts and other matters of mutual interest. The committee also administers the Alexis-Millar Western Scholarship Program. Funded by Millar Western, the program awards six scholarships annually, each valued at \$1,000, to members of the Alexis Nakota Sioux Nation who are pursuing post-secondary education. During the reporting period, ECSC awarded \$30,000 in grants to the students listed in the following table.

**Alexis-Millar Western Scholarship Recipients:**

2007	2008	2009	2010	2011
Jacklyn Alexis	Jasmine Alexis	Jamie Cardinal	Camillo Alexis	Brandon Alexis
Jamie Cardinal	Marcel Cardinal	Andrea Kootenay	Chasidy Alexis	Jasmine Alexis
Sherry Letendre	Toni Letendre	Toni Letendre	Chad Alexis-Bruno	Courtney Jones
Claudette Pastion	Travis McDermott	Eva Potts	Chloe Mustooch	Danica Pawlick-Potts
Misty Potts-Sanderson	Eva Potts	Melinda Potts	Misty Potts-Sanderson	Eva Potts
Roselle Potts	Reginald Potts	Misty Potts-Sanderson	Echo Roth	Melinda Potts

**Commentary**

N/A

**VOIT 49 – Meet expectations of Section 5 of CSA Z809-2002 - Public Participation Requirements.**

Target	Adhere to the communication initiatives that satisfy the expectations of Section 5 of CSA Z809-2002.
Stewardship Reporting	i) Summary of status of the implementation of the DFMP/SFMP Implementation Communication Plan and a rationale for any deviation. ii) Summary of all consultation and communication activities.

**Reporting**

The DFMP Communication plan was written to be consistent with requirements of CSA Z809-2002. See responses to VOITs 44, 46, 48, 50 and 52, which summarize all consultation and communication activities.

**Commentary**

N/A

**VOIT 50 – Contribution to, and implementation of, a management plan for Huestis Forest.**

Target	Work with Alberta government and other stakeholders, as a member of a multi-stakeholder steering committee, to develop and implement a management plan to enhance the demonstration and educational value of Huestis Forest, by December 31, 2008.
Stewardship Reporting	i) The status of the creation of the multi-stakeholder steering committee and development and implementation of management plan. ii) Summary of initiatives that Millar Western has undertaken in support of the Huestis Demonstration Forest.

**Reporting**

*(i) The status of the creation of the multi-stakeholder steering committee and development and implementation of management plan.*

The HDF Partnership continued to operate under draft terms of reference and to focus on the delivery of formal educational programming at the Huestis Demonstration Forest.

*(ii) Summary of initiatives that Millar Western has undertaken in support of the Huestis Demonstration Forest.*

Following a successful pilot project in 2011 focused on Grade 6 classes in Whitecourt, Millar Western secured funding to maintain the Huestis Demonstration Forest Education Program from 2012 through 2014, and to broaden the scope of this outdoor learning opportunity to include students in additional grades and in communities throughout the Whitecourt and Fox Creek region. During the reporting period, Millar Western worked with non-profit society Inside Education and Alberta Environment and Sustainable Resource Development to conduct planning for the expanded program, which was delivered in fall 2012 to 298 students and 53 adults (teachers and parents) in 14 classes (Grade 4, Grade 6, Junior High and Senior High). Millar Western also conducted site maintenance activities supporting both formal education program delivery and public use of the facility for self-guided tours.

**Commentary**

N/A

<b>VOIT 51 – Development and incorporation of Virtual Open House into corporate website.</b>	
Target	Develop and incorporate virtual open house into existing Millar Western Internet website by July 31, 2008.
Stewardship Reporting	i) Status of the implementation of the virtual open house. ii) Following implementation, a summary of the number of hits to this component.

**Reporting**

Refer to VOIT 44.

**Commentary**

N/A

<b>VOIT 52 – Establishment of permanent Public Advisory Committee (PAC) and number of group meetings.</b>	
Target	Establish Public Advisory Committee by December 31, 2007, and hold a minimum of four (4) meeting annually, starting from the date that the group is established.
Stewardship Reporting	i) Status of the establishment of the PAC. ii) Membership, meeting dates and topics covered at each meeting.

**Reporting**

*(i) Status of the establishment of the PAC.*

In 2007, Millar Western merged separate mill and forest consultation committees to form its Public Advisory Committee (PAC). PAC is an independently facilitated, public consultation group that meets a minimum of four times per year, to monitor the company's environmental performance, provide input on company plans, and learn more about forestry related issues.

*(ii) Membership, meeting dates and topics covered at each meeting.*

Millar Western's Public Advisory Committee membership is summarized in the following table.

<b>PAC Membership Summary</b>	
<b>Member Name</b>	<b>Affiliation</b>
Gary Beeson	Town of Swan Hills
Harvey Burnstick	Alexander First Nation
Mary Campbell (Alternate)	Town of Fox Creek
Darlene Chartrand	Town of Whitecourt
Daniel Caron	Contractor
Garth Davis	Conoco Phillips
Clint Emery (Alternate)	Town of Swan Hills
Jenn Hobson (Alternate)	Fox Creek Chamber of Commerce
Bernie Hornby	Town of Fox Creek
Ron Kidd	Lac Ste. Anne County
Maurice Mahe	Trapper
Alex Manweiler	Trailblazers Snowmobile Club
Gayle Mombourquette	Whitecourt & District Chamber of Commerce
Fred Priestly-Wright	Public Representative
Jeanette Williams	Contractor
Cathy Wiltse	Fox Creek Chamber of Commerce
Daryl Yagos	Woodlands County

The meeting dates and the topics covered at each are summarized in the following table.

<b>PAC Summary</b>	
<b>Meeting Dates</b>	<b>Topics Covered</b>
June 26, 2007	Inaugural meeting – introduction of purpose and objectives, terms of reference
August 21, 2007	Ratification of terms of reference; quarterly environmental performance review
November 20, 2007	Quarterly environmental performance review; overview of 2007-16 DFMP
January 15, 2008	Quarterly environmental performance review; SRD presentation on MPB; overview of 2007 annual operating plan
April 15, 2008	Quarterly environmental performance review; tour of Whitecourt pulp mill
June 17, 2008	Biofuels presentation; overview of 2008-09 AOP
September 9, 2008	Field tour – Huestis Demonstration Forest
October 21, 2008	Quarterly environmental performance review; presentation by Alberta Trappers Association
January 20, 2009	Quarterly environmental performance review; findings of internal woodlands audit;

	2007-08 Sustainable Forest Management Annual Report review
April 14, 2009	Quarterly environmental performance review; Millar Western response to economic downturn; AFPA presentation on state of the forest industry
June 16, 2009	Quarterly environmental performance review; presentation on proposed biomass gasification project
October 13, 2009	Quarterly environmental performance review; MWFP presentation on forest certification pressures in the marketplace; presentation from representatives of Sustainable Forestry Initiative (SFI)
January 19, 2010	Quarterly environmental performance review; AFPA presentation on carbon markets; presentation on energy reduction projects at pulp mill; MPB update
April 13 2010	Quarterly environmental performance review; 2010-11 AOP presentation
September 14, 2010	Quarterly environmental performance review; presentation from Athabasca Watershed Council
December 7, 2010	Quarterly environmental performance review; presentation on Alberta pulp industry's Conservation, Efficiency and Productivity (CEP) Plan/Water for Life; review of new version of SFI standard
February 15, 2011	Quarterly environmental performance review; MWFP presentation on land rezoning proposal to extend log yard; new member orientation
April 12, 2011	Quarterly environmental performance review; MWFP presentation on proposed bioenergy plant at pulp mill; 2011-12 AOP
June 14, 2011	Wildfire protection presentation by AESRD; update on Fox Creek sawmill; member appreciation supper
September 13, 2011	Field tour to following locations: <b>SITE #1 (Laura Lake Compartment) HARVESTING; SITE #2 (Goodwin Lake Compartment) GROWTH &amp; YIELD – INTENSIVELY MANAGED SITE; SITE #3 (Goodwin Lake Compartment) GROWTH &amp; YIELD – BASIC MANAGED SITE; SITE #4 (LOCATION) MPB INFESTATION</b>
January 6, 2012	In lieu of meeting, distributed written environmental status report to members to update on Q2 and Q3, 2011, environmental performance
February 7, 2012	Quarterly environmental performance review; MWFP presentation on recruitment and retention challenges
April 24, 2012	Tour of new MWFP Fox Creek sawmill

### Commentary

PAC has proven a successful mechanism for exchanging information and maintaining open lines of communication with major stakeholders.

### VOIT 53 – Implementation of a 24-hour toll-free telephone hotline.

Target	Launch 24-hour toll-free hotline by February 29, 2008.
Annual Reporting	Status of the implementation of the 24-hour hotline.

### Reporting

See VOIT 44.

### Commentary

N/A

## 2.2. Company Commitments

In addition to VOITs, which constitute obligations on the part of the company, Millar Western identified other commitments that it would strive to achieve over the course of the FMP period. Following is a report on the status of those commitments.

<b>Commitment 1 – Reconcile SHS, following DFMP approval.</b>	
Target	Submit to Alberta gov't. by November 30, 2008.
Stewardship Reporting	A summary of the process used and resulting changes.

### Reporting

Following the Alberta government's approval of Millar Western's 2007-2016 Forest Management Plan (FMP), Millar Western submitted a revised FMP landbase and spatial harvest sequence. The harvest areas for the 2004-06 timber years were incorporated into the landbase, and the SHS was revised to account for areas that, though included in the original SHS, were already harvested.

### Commentary

N/A

<b>Commitment 2 – Re-run BAP analysis on SHS submitted with 2007 DFMP.</b>	
Target	Submit to Alberta government by November 30, 2008.
Stewardship Reporting	i) A condensed version of report provided to the Alberta government. ii) A summary of the progress of any additional analysis.

### Reporting

In a letter dated March 18, 2009, from Doug Sklar of AESRD, the Alberta government indicated that Millar Western would not be required to re-run and submit a revised BAP analysis on the final approved spatial harvest sequence; therefore, none was undertaken.

### Commentary

N/A

<b>Commitment 3 – Maintain DFA Harvest Planning Committee.</b>	
Target	Ongoing.
Stewardship Reporting	Summary of committee's composition, structure and key accomplishments.

### Reporting

Since the completion and implementation of the 2007-16 FMP, the DFA Harvest Planning Committee has operated in a less formal manner than originally planned, for several reasons. First, one of the member companies, Mostowich Lumber, was purchased by Millar Western in the fall of 2007. Weyerhaeuser operated within the DFA



in only a limited capacity (W13) during the reporting period, while Spruceland operated only in W11. Given the limited presence of these quota holders on the DFA, Millar Western elected to deal with any operational planning issues at the general development plan and annual operating plan stages of the planning process.

**Commentary**

Millar Western will continue to assess the need for a DFA Harvest Planning Committee and reinstate the group if necessary.

<b>Commitment 4 – Develop and implement Industrial Salvage tracking process.</b>	
Target	Submit to Alberta government by October 31, 2008.
Stewardship Reporting	Summary of the progress made in developing, reviewing and approving, and if approved, implementing Millar Western’s proposed industrial salvage process.

**Reporting**

Millar Western is tracking all salvage volume acquired within the DFA and reporting this information to the Alberta government on an annual basis. As salvage volume is delivered across Millar Western’s weigh scales, it is tracked, with a theoretical volume calculated for each industrial disposition. At the end of the timber year, the theoretical volume is reversed and replaced with the actual weigh scaled volume, then provided to the Alberta government by Millar Western staff.

**Commentary**

N/A

<b>Commitment 5 – Revise FMA Operating Ground Rules.</b>	
Target	Implement revised OGRs by April 30, 2008.
Stewardship Reporting	Summary of the progress made on revising and implementing the OGRs.

**Reporting**

Millar Western’s Operating Ground Rules were revised and approved on June 6, 2008, in a letter from Doug Sklar of AESRD.

**Commentary**

N/A

<b>Commitment 6 – Maintain DFA Silviculture Committee.</b>	
Target	Ongoing.
Stewardship Reporting	Summary of committee's composition, structure and key accomplishments.

**Reporting**

The DFA Silviculture Committee has met three times since the approval of the DFMP: July 3, 2008; March 19, 2009; and June 18, 2009. Issues discussed include DFMP approval conditions, land-base conversion in W11, land-base balancing, MWFP vegetation management strategy, establishment regimes and the Reforestation Standard of

Alberta. Meetings were attended by representatives of AESRD, Millar Western Forest Products Ltd, Weyerhaeuser Company Ltd., Vanderwell Contractors Ltd., Spruceland Millworks Inc. and FRIAA.

The DFA Silviculture Committee's interaction will increase as Millar Western proceeds with development of its 2017-26 FMP.

**Commentary**

N/A

<b>Commitment 7 – Develop Alternative Regeneration Standards (ARS).</b>	
Target	Begin development of ARS by November 30, 2008.
Stewardship Reporting	Summary of progress on development, approval and implementation of ARS.

**Reporting**

The Alberta government implemented the 'Reforestation Standard of Alberta', effective May 1, 2010. Millar Western completes its reforestation monitoring according to this standard.

**Commentary**

N/A

<b>Commitment 8 – Develop specific regeneration strategies to mitigate insect and disease infestations.</b>	
Target	Initiate development by December 31, 2008.
Stewardship Reporting	Summary of the progress on the development and implementation of the strategies to mitigate damage due to insect and disease infestations.

**Reporting**

To date, no formal regeneration strategies have been developed to mitigate the MPB. Millar Western has suggested converting harvested stands to non-pine species as a possible method for reducing the forest's susceptibility to the mountain pine beetle; however, this type of landbase conversion is currently restricted by the Government of Alberta's Regeneration Standard of Alberta (RSA) balancing requirements. As specific insect and disease epidemics are impossible to accurately predict over a stand rotation, it is difficult to know whether this type of strategy would be effective. Operationally, Millar Western has, where appropriate, enhanced its employment of "drag and leave-for-natural" treatments for pine regeneration, to try to increase regenerating stand densities and lessen the potential for damage from insects and disease.

**Commentary**

N/A

<b>Commitment 9 – Develop and secure Alberta government's approval of a wider suite of managed stand yield curves.</b>	
Target	Secure approval of data collection program acceptable to Alberta government by February 29, 2008.
Stewardship Reporting	Summary of the progress in the development and approval of a wider suite of managed-stand yield curves, and their incorporation into management planning initiatives.

**Reporting**

Millar Western worked with the Alberta government in establishing a data collection approach in support of developing managed-stand yield curves. During the 2007-10 timber years, Millar Western established or re-measured 93 managed-stand permanent sample plots.

The data collected for the purposes of the Regeneration Standard of Alberta (RSA), will be used to build new yield curves for future planning initiatives. For the 2017-26 FMP, Millar Western will be using the Growth and Yield Projection System (GYPSY) as opposed to empirical yield curve data, for forecasting stand growth and yield.

**Commentary**

N/A

<b>Commitment 10 – Implement growth and yield initiatives.</b>	
Target	As defined in Growth and Yield Plan (Appendix VIII).
Stewardship Reporting	i) Summary of the implementation and progress of each of the programs under the Growth and Yield Plan. ii) Status of the submission/review/approval of the revised Growth and Yield Plan. iii) Summary of the changes to the Growth and Yield Plan resulting from the annual internal review process.

**Reporting**

*i) Summary of the implementation and progress of each of the programs under the Growth and Yield Plan.*

As directed in a letter from Robert Stokes of AESRD, dated January 7, 2012, Millar Western was to provide a summary of the implementation and progress of each of the programs under the growth and yield plan in the 2007-11 stewardship report. The summary follows below.

<b>Forest Inventory</b>	<b>Schedule future inventory updates to occur as required based on Alberta Forest Management Planning Standards.</b>
Update	Refer to Company Commitment 11.

<b>Temporary Sample Plots</b>	<b>Prior to next planning period (Forest Management Plan), assess the number of plots available for analysis and determine the need for temporary sample plots (TSPs) to fill data gaps for yield curve development, or to support other data needs.</b>
Update	Millar Western is currently reviewing its overall TSP needs for the purpose of the 2017-26 FMP. Should additional TSPs be required to support this planning initiative, the program design and data collection would be undertaken during 2014-15.

<b>Permanent Sample Plot Program</b>	<b>Complete establishment of grid-based PSPs in the remaining un-sampled grid locations in both FMUs, and establish an additional 100 plantation PSPs in regenerating stands to help bridge the data gap which exists between years 0 and 30 (and to increase sample sizes in strata of interest).</b>
Update	<p>Millar Western was working towards establishing the remaining grid-based PSPs but scaled back its efforts due to the uncertainty regarding the Provincial Growth and Yield Initiative (PGYI) and how it might impact the overall direction of growth and yield plot establishment and data collection.</p> <p>As of the end of the 2011 timber year, Millar Western harvested one standard PSP and replaced it with a plantation PSP. The company intends to complete more of these replacements during the 2012-16 timber years.</p> <p>As of the end of the 2011 timber year, Millar Western had established 100 plantation PSPs in regenerating stands.</p>

<b>Regeneration Surveys</b>	<b>Carry out AESRD regeneration surveys (Establishment and Performance) as required by AESRD, until Alternative Regeneration Standards are developed and approved.</b>
Update	<p>The Alberta government formally adopted and mandated the Reforestation Standard of Alberta (RSA) as the provincial standard on May 1, 2010.</p> <p>As part of the RSA requirements, Millar Western submits all RSA survey data and compiled results to the Alberta government, as the surveys are completed.</p> <p>To date, Millar Western's survey results have shown strata mean annual increment (MAI) values are in excess of strata level MAI targets (standards).</p>

<b>Mortality and Ingress</b>	<b>Establish 24 new MI PSPs (8 blocks with 3 PSPs per block).</b>
Update	Millar Western established the remaining 24 mortality and ingress plots.

<b>Tree Improvement</b>	<b>Continue participation in the Tree Improvement Progeny Trials and work with Sally John (Isabella Point Forestry) and the Huallen seed orchard company (HASOC) to develop a protocol for PSP establishment in tree improved stands.</b>
Update	<p>Millar Western has maintained the two tree-improvement progeny trial plots on the DFA and has scheduled them for re-measurement in 2013.</p> <p>To date, there has been no agreement on the protocol for tree improvement PSPs among the collaborating companies and the Alberta government. Millar Western will endeavor to resolve this and establish tree improvement PSPs during the 2012-16 timber years.</p> <p>As of the end of the 2011 timber year, no grid-based tree-improvement PSPs have been established due to the absence of a protocol.</p>

Association Memberships	Continue participation in associations, including participation in data collection on their FMA area where possible/required and data sharing for relevant association projects.
Update	Millar Western maintains membership in the following associations, as it relates to growth and yield initiatives: <ul style="list-style-type: none"> <li>• Foothills Growth and Yield Association (FGYA) – Member</li> <li>• Mixedwood Management Association (MWMA) – Member</li> <li>• Alberta Forest Growth Organization (AFGO) – Member and Chair</li> <li>• FP Innovations – Member</li> </ul>

Data Archiving	Within the next five years, complete database and archiving protocols for cataloguing and storing all growth and yield information in a single locale.
Update	Millar Western maintains a structured approach to storing and archiving the data, and protocols associated with its growth and yield information. During 2008, Millar Western developed a web application to accommodate the viewing and retrieval (to authorized users) of the company's PSP data.

*ii) Status of the submission/review/approval of the revised Growth and Yield Plan.*

The revised Growth and Yield Plan for the 2007-16 FMP, dated August 29, 2008, was approved on November 6, 2008, as per an AESRD letter to Millar Western's Director of Fibre Resources, Trevor Wakelin, entitled: Approval – Growth-And-Yield Plan.

*iii) Summary of the changes to the Growth and Yield Plan resulting from the annual internal review process.*

As a result of the Alberta Forest Growth Organization's (AFGO) Provincial Growth Yield Initiative (PGYI), where companies will pool their growth and yield data in a central database for other members' use, Millar Western has scaled back its PSP establishment and measurement undertakings. Millar Western is currently reviewing plot establishment needs to align with the PGYI and to accommodate the company's own specific needs

**Commentary**

N/A

Commitment 11 – Investigate new technologies for developing forest and vegetation inventory for DFA.	
Target	Investigate new technologies for developing forest and vegetation inventory for the DFA.
Stewardship Reporting	(i) Summary of any planned inventory investigations. (ii) Summary of the results of any completed inventory investigations.

**Reporting**

*(i) Summary of any planned inventory investigations.*

A proposed project has been brought forward by a group of companies (including Millar Western) for potential funding under FRIAA that would utilize LiDAR along with a semi-automated individual tree inventory process to provide predictive statistics for defined forest metrics at an operational level. This project has not received FRIAA funding approval as of yet but has been listed as a very good project with good prospects of receiving funding in future calls for proposals by FRIAA.

*(ii) Summary of the results of any completed inventory investigations.*

Beginning in 2011, Millar Western participated in a project that built on some work previously done on developing a process for producing a semi-automated forest inventory. The project objectives were to complete technical advancements to the semi-automated forest inventory process already underway, with a focus on providing detailed information more quickly than traditional photo interpretation methods. In this project, significant advancements were made (i.e., increased automation, increased precision and accuracy, and addition of height and volume metrics). During the project, it was determined that the height of individual trees could be provided by utilizing SGM (Semi Global Matching). SGM uses complex mathematical computations to provide an elevation for each individual pixel on an image. SGM, in combination with LiDAR, allowed for canopy heights for every position on an image. The results of this project were encouraging, and in the future it is expected that more work will be done to enhance the ability of the inventory to more accurately predict stand volume and piece size.

As well, in 2012, Millar Western began the production of a new forest inventory for its FMA area. This inventory is slated to be complete in Q2/2014. This enhanced inventory product exceeds the current AVI 2.1.1 standards and utilizes softcopy photogrammetric technology with high resolution 4 band digital imagery (20 – 35 cm pixel resolution), which enables three dimensional (3D) viewing in a digital environment for more precise inventory attribute data collection. LiDAR will be used to provide for accurate overstorey tree height information and also to aid in determining a more “accurate” polygon relative to a more homogenous height distribution across the polygon.

**Commentary**

N/A

**Commitment 12 – Develop and implement operational risk rating system to provide guidance in determining environmental conditions in which forest operations can be conducted in an environmentally sound manner.**

Target	Implement by December 31, 2008.
Stewardship Reporting	Summary of the progress in developing and implementing the operational assessment tools/techniques for assessing operability under various environmental conditions.

**Reporting**

In addition to adhering to the operating ground rules, Millar Western has implemented a new pre-harvest assessment (PHA) process (focused on ecosite, soil stability, and soil vulnerability issues) to guide seasonal and other general operability considerations. This PHA process uses LiDAR technologies, high resolution imagery and, as required, on-site assessments.

**Commentary**

N/A

**Commitment 13 – Investigate the need for BAP SHEs and HSMs validation and refinement.**

Target	Undertake investigations to assess validation and refinement requirements for the Special Habitat Elements (SHEs) and Habitat Supply Models (HSMs).
Stewardship Reporting	i) Summary of the investigative and refinement initiatives planned or undertaken, and the progress of each. ii) Summary of the findings and any recommendations for future refinement or incorporation into planning or operational activities.

## Reporting

*i) Summary of the investigative and refinement initiatives planned or undertaken, and the progress of each.*

Millar Western has not undertaken any investigative or refinement initiatives associated with the BAP SHEs and HSMs to date.

*ii) Summary of the findings and any recommendations for future refinement or incorporation into planning or operational activities.*

Millar Western is currently assessing strategies for habitat supply modeling for the future and, specifically, for its upcoming 2017-26 forest management plan.

## Commentary

N/A

## 3. Appendix 1 – VOIT & Commitment Summary

Below is summarized table of the textual content from Appendix XXIII (Commitments) of Millar Western's 2007-16 Detailed Forest Management Plan (DFMP). To accommodate the complexity and space, minor wording variations may exist between this summary table and that contained in the DFMP, and the documentation within the DFMP should be considered the approved source.

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 1 - Area of opening, mature + old, old and oldgrowthness forest by species strata for the gross and managed landbase for each FMU (1.1.1.1).	At the start of the 2017 Timber Year, achieve the seral stage class species strata proportions as defined in the target tables.		(i) Actual area and proportion within each seral stage class and species strata.  (ii) Variance between actual and target values.
VOIT 2 - Opening patch size distribution on the gross landbase for each FMU (1.1.1.2a).	At the start of the 2017 Timber Year, achieve the opening patch size distribution targets defined in target table.	Actual harvest size statistics.	(i) Actual opening patch area and proportion by size class;  (ii) Variance between actual and target values.
VOIT 3 - Percent of overall oldgrowthness forest area that is interior oldgrowthness forest by FMU for the gross landbase (1.1.1.2Bi).	At the start of the 2017 Timber Year, achieve the target proportions of oldgrowthness forest that is interior oldgrowthness forest within the gross landbase for each FMU as defined in target tables.		(i) Actual proportion of interior oldgrowthness for FMUs' gross landbases.  (ii) Variance between actual and target values.
VOIT 4 - Open all-weather forestry road density by FMU (1.1.1.3A).	At the start of the 2017 Timber Year, the target open all weather forestry road densities within the DFA, by FMU, are: W11 - < 0.240 km/km <sup>2</sup> ; W13 - < 0.334 km/km <sup>2</sup> .		(i) Actual density of open all-weather forestry roads by FMU.  (ii) Variance between actual and target forestry road values.  (iii) Actual density of other users' open all weather roads by FMU (SRD to supply data).
VOIT 5 - Open seasonal / temporary forestry road length by FMU (1.1.1.3B).	At the end of each Timber Year (beginning 2007), the target open seasonal/temporary road lengths within the DFA, by FMU, are: W11 - < 50.0 km; W13 - < 220.0 km.		Length of seasonal/ temporary roads opened and used by forestry operators on the DFA, by FMU.
VOIT 6 - Existence of process for maintaining plant communities uncommon in the DFA and/or Province (1.1.1.4).	By December 31, 2008, develop and implement a process for identifying uncommon plant communities, training field staff in their identification, tracking their location and protecting.	Summary of progress on developing and implementing process for maintaining identified uncommon plant communities in the DFA and/or in the province.	(i) Identity and area occupied by identified UPC;  (ii) % identified UPC disturbed by forest operations;  (iii) Maps showing distribution of identified UPC.



Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 7 - Area of unsalvaged burned forest (1.1.1.5A).	Adhere to Alberta gov't's Fire Salvage Directive and FireSmart objectives.	Number of fires that occurred on the DFA, and their associated areas.	(i) Number of fires that occurred on the DFA, and their associated areas.  (ii) Number of fires and the area of those fires in which salvage operations were conducted.
VOIT 8 - Area of unsalvaged blowdown forest (1.1.1.5B).	Adhere to the following merchantable blowdown retention values: 1) Blowdown patch $\geq$ 100 ha: $>$ 10% in patches 10-100 ha; $>$ 5% in small patches or single trees. 2) Blowdown patches $<$ 100 ha: $>$ 10% in small patches or single trees.	Progress on the development of a blowdown salvage strategy.	Reporting aspects defined in blowdown salvage strategy.
VOIT 9 - Number of non-conformance incidents with FMA Operating Ground Rules or Alberta gov't. approved Millar Western riparian management strategy (1.1.1.6).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 10 - Volume and area harvested in riparian areas under Alberta gov't. approved Millar Western Riparian Management Strategy (1.1.1.7).	Harvest $\leq$ 25% volume/area annually in riparian areas adjacent to harvest areas.	To be defined upon completion of riparian management strategy.	To be defined upon completion of riparian management strategy.
VOIT 11 - Percent of FMU AAC residual structure (living and dead), within a harvest area, representative of the status (living/dead), size and species distribution of the overstorey trees by operating compartment (1.1.2.1A).	Retain 1% of total AAC volume as residual structure annually, by FMU, distributed over selected operating compartments.	Volume and percentage of AAC of live merchantable structure retention left on the DFA, by compartment and FMU.	Volume and percentage of AAC of live merchantable structure retention left on the DFA, by compartment and FMU by year.
VOIT 12 - Percent of harvested area by FMU, with downed woody debris volume equivalent to pre-harvest conditions (1.1.2.1B).	$\geq$ 75% of annual harvest area with DWD equivalent to pre-harvest conditions, by FMU.		Actual percent of harvested area in DFA in which DWD levels are equivalent to, or greater than, pre-harvest levels.
VOIT 13 - Number of non-conformances incidents with FMA OGRs in relation to identified sensitive sites located on the DFA (1.1.2.2).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 14 - Number of non-conformance incidents with Millar Western's OGRs or Code of Practice for Water Course Crossings, by FMU (1.1.2.3).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 15 - Area of suitable habitat within each FMU for each biodiversity assessment species (1.2.1.1).	At the start of the 2017 Timber Year, achieve the area, and proportion of area, of suitable habitat for the biodiversity assessment species defined in target tables.		Summary of adherence to SHS.
VOIT 16 - Number and area (ha) of in-situ genetic conservation areas (1.3.1.1).	Establish zero (0) genetic conservation areas for each seed zone conforming with Section 20 of STIA.		(i) Number of in-situ conservation areas required in each seed zone and number established on DFA.  (ii) Map of established in-situ conservation areas.
VOIT 17 - Number of provenances and genetic lines in ex-situ gene banks and trials (1.3.1.2).	Active ex-situ conservation program for all Controlled Parentage Program plan species in cooperation with Alberta gov't.		Number of ex-situ conservation areas required in each seed zone and the number and spatial location of existing areas in cooperation with Alberta gov't.
VOIT 18 - Stakeholder consultation regarding protected areas as identified through government processes (1.4.1.1).	Maintain ongoing consultation with relevant protected areas agencies.	(i) Whether new parks or protected areas are proposed within or adjacent to DFA, as confirmed by Alberta gov't.  (ii) Summary of consultation and outcomes related to proposed or existing parks or protected areas.	
VOIT 19 - Annual percent of satisfactory regenerated surveys (establishment surveys and performance surveys) by company and FMU (2.1.1.1A).	100 % of establishment surveys achieve Satisfactorily Regenerated (SR) status and 100 % of performance surveys achieve Free-to-grow (FTG) status.	Summary, by FMU and forestry operator, the amount of area surveyed and the results of the surveys.	
VOIT 20 - Cumulative percent of satisfactory regenerated surveys (establishment surveys and performance surveys) by company and FMU (2.1.1.1B).	100 % of establishment surveys achieve Satisfactorily Regenerated (SR) status and 100 % of performance surveys achieve Free-to-grow (FTG) status.		Cumulative number of harvests blocks and areas in which regeneration surveys were conducted, by regeneration success, forestry operator and FMU.
VOIT 21 - Forestry Operator specific regenerated strata distribution percentage by subunit (2.1.1.1C).	At the start of the 2017 Timber Year, each operator to achieve their harvest area adjusted regenerated strata percent distribution.	(i) Regenerated area and percent by strata, forestry operator and FMU.  (ii) Variance between target and actual area and percent regenerated strata by forest operator and FMU.	Overall regenerated area and percent by strata, forestry operator and FMU.

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 22 - Percent of change in managed landbase area (2.1.2.1).	At the start of the 2017 Timber Year, < = 2.5% of managed landbase converted to non-timber production uses.	(i) Number of dispositions and area of dispositions withdrawn from the managed landbase.  (ii) Number of dispositions and area of dispositions returned to the managed landbase.  (iii) Cumulative net managed landbase area withdrawn.	
VOIT 23 - Area affected by insects, disease or natural calamities as reported by Alberta gov't. and Millar Western (2.1.2.2).	Report all identified areas where insect, disease or natural calamity affect an area >= 10 ha on the DFA.	Summary of total area known to be affected by insect, disease and natural calamities, where individual occurrences >= 10 ha.	Summary of total area known to be affected by insect, disease and natural calamities, where individual occurrences >= 10 ha.
VOIT 24 - Percent of Rank 1 and Rank 2 mountain pine beetle susceptible stand area harvested (2.1.2.3A).	By the start of the 2017 Timber Year, harvest Rank 1 and Rank 2 MPB stand area: W11 - 2,504 ha (12%); W13 - 15,477 ha (18%).	(i) Annual and cumulative area harvested and the percent of harvest area in Rank 1 and Rank 2 stands on the managed landbase.  (ii) Variance between actual percent of harvest area within Rank 1 and Rank 2 stands and the target.	(i) Annual and cumulative area harvested and the percent of harvest area in Rank 1 and Rank 2 stands on the managed landbase.  (ii) Variance between actual percent of harvest area within Rank 1 and Rank 2 stands and the target.
VOIT 25 - Percent of identified MPB infested stand area harvested (2.1.2.3B).	Harvest 100% of the area identified as having "green" or "red-fall" MPB attacked trees, where economically feasible, on the managed landbase, or where authorized by Alberta gov't.	Annual and cumulative area of the managed and gross landbase that have been identified as being infested with MPB, and the total area and % area that have been harvested.	Annual and cumulative area of the managed and gross landbase that have been identified as being infested with MPB, and the total area and % area that have been harvested.
VOIT 26 - Area of pure pine and mixedwood pine stands by 'mature' and 'old' seral stage (2.1.2.4).	At the start of the 2017 Timber Year, achieve the area of pure pine and mixedwood pine stands in the mature and old seral stages as summarized in target tables.		Summary of the amount of pure pine and mixedwood pine stand area in the mature and old seral stages.
VOIT 27 - Existence and implementation of a noxious weed program (2.1.3.1).	Continue to maintain existing Noxious Weed Program, and revise where necessary following annual review.		(i) Summary of the results of all noxious weed inspections conducted, as part of the Company's noxious weed program.  (ii) Summary of any significant changes to noxious weed program.
VOIT 28 - Existence of programs to select and monitor amphibian and soil microorganism indicator species (2.2.1.1).	Continue Company support and participation in the SOFA and Soil Micro-organism Study, and incorporate findings where applicable.		Summary of progress and findings, and where findings have been incorporated in to operational and/or strategic planning.
VOIT 29 - Number of incidents of non-conformance with respect to bared area (roads and landings) within harvest areas (3.1.1.1).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 30 - Number of incidents of non-conformance with respect to reportable soil erosion and slumping (3.1.1.2).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 31 - Number of incidents of non-conformance with respect to rutting in harvest areas (3.1.1.3).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 32 - Percent of eligible third order watersheds in which the annual average runoff coefficient value is > 15% of the baseline condition (3.2.1.1A).	Zero (0) percent of the eligible third order watersheds exceed the baseline annual average runoff coefficient value by >15 % in any period over the 200-year planning horizon.		(i) Modeled average RC value, for the eligible third order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average RC value by > 15%.  (ii) Percent of eligible third order watersheds that exceed the baseline annual RC value by > 15%.
VOIT 33 - Percent of eligible first order watersheds in which the annual average runoff coefficient value is > 50 % of the baseline condition (3.2.1.1B).	Maximum 5% of the eligible first order watersheds exceed the baseline annual average runoff coefficient value by >50% and none exceed the baseline condition by 100%.		(i) Modeled average RC value, for the eligible first order watersheds, based on the actual harvesting activity, and identity of any that exceed the baseline annual average RC value by >50%.  (ii) Percent of eligible first order watersheds that exceed the baseline annual RC value by >50%.
VOIT 34 - Existence of research initiative to develop relationship between operations and water quality, and implementation of recommendations to mitigate negative impact on water quality (3.2.1.2).	Continue research initiative until 2012, and incorporate relevant findings into strategic and/or operational planning.		(i) Status of the water quality research initiative.  (ii) Summary of recommendations that the company has implemented for purposes of mitigating impact of water quality due to forestry operations.
VOIT 35 - Riparian buffers maintained as outlined in FMA operational ground rules or Alberta gov't. approved riparian management strategy (3.2.2.1).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 36 - Existence of carbon budget analysis on the Preferred Forest Management Strategy of the 2007 DFMP (4.1.1.1).	Complete a carbon budget of the DFA as part of the 2007 DFMP.	Summary of any additional carbon budget analysis completed on the DFA.	Summary of any additional carbon budget analysis completed on the DFA.
VOIT 37 – REFER TO VOIT 22.			

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 38 - Compliance with Annex 1 of the Alberta Forest Management Planning Standard (April 2006), regarding the process for establishing appropriate AACs (5.1.1.1).	Receive Alberta gov't's approval of the AAC, and the AAC determination process for the DFA.	(i) Alberta gov't's response to AAC determination process.  (ii) Any re-calculation of AAC prior to the 2017 DFMP, and justification.	(i) Alberta gov't's response to AAC determination process.  (ii) Any re-calculation of AAC prior to the 2017 DFMP, and justification.
VOIT 39 - Adherence to communication initiatives related to non-timber commercial rights holders, as defined in the external communications section of the DFMP Communication Implementation Plan (5.1.2.1).	Adhere to relevant external communication initiatives related to non-timber commercial rights holders.	(i) Summary of external consultation and communication initiatives, and the qualitative assessment of their success.  (ii) Summary of the stakeholder registry (the number of members by stakeholder class).	(i) Summary of external consultation and communication initiatives, and the qualitative assessment of their success.  (ii) Summary of the stakeholder registry (the number of members by stakeholder class).
VOIT 40 - Number of non-conformance incidents as per The Heritage Resources Act. (5.1.2.2).	Zero (0) annual incidents of non-conformance.	Number of non-conformance incidents and summary of each.	Number of non-conformance incidents and summary of each.
VOIT 41 - Development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations (5.1.2.3).	By November 30, 2008, develop and implement process for identifying areas of high aesthetic value and for mitigating visual impacts resulting from forestry operations.	Progress on development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations.	Progress on development and implementation of process for identifying areas of high aesthetic value and mitigating visual impacts of harvest operations.
VOIT 42 - Percent of Whitecourt FireSmart Community Zone area in the 'extreme' and 'high' Fire Behaviour Potential rating categories (5.2.1.1A).	At the start of the 2017 Timber Year, limit the combined area in the 'extreme' and 'high' FPB rating category to 28% (31,496 ha of the 110,901 ha) of the WFCZ.		Actual area and percent change in the "high" and "extreme" FBP ratings, for the Whitecourt FireSmart Community Zone.
VOIT 43 - Percent of DFA area in the 'extreme' and 'high' Fire Behaviour Potential rating categories (5.2.1.1B).	At the start of the 2017 Timber Year, limit the combined area in the 'extreme' and 'high' FPB rating category to 37% (169,209 ha of the 452,471 ha) of the DFA.		Actual area and percent change in the "high" and "extreme" FBP ratings, for the DFA.
VOIT 44 - Adherence to communication initiatives related integrating other uses and timber management activities, as defined in the external communications section of the DFMP Communication Implementation Plan (5.2.2.1).	Adhere to communication initiatives related to the integration of other uses and timber management activities.	(i) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success.  (ii) Summary of the stakeholder registry (the number of members by stakeholder class).	(ii) Summary of external stakeholder consultation and communication initiatives, and the Company's qualitative assessment of their success.  (ii) Summary of the stakeholder registry (the number of members by stakeholder class).
VOIT 45 - Difference between managed and natural stand yield (5.2.3.1).	No net decrease in stand yield from natural to managed stands.		(i) Progress on development and implementation of Alternative Regeneration Standards.  (ii) Summary reports as defined as part of these new standard, when implemented.

Indicator	Target	Annual Reporting	Stewardship Reporting
VOIT 46 - Meet Alberta gov't's current expectations for aboriginal consultation (6.1.1.1).	Consult, at the community level, with designated representatives of aboriginal communities defined by Alberta gov't.	(i) Identify aboriginal communities that participate in planning processes.  (ii) Summary of all initiatives directly focused at contacting and consulting with aboriginal communities and summary of key deliberations and achievements.	(i) Identify aboriginal communities that participate in planning processes.  (ii) Summary of all initiatives directly focused at contacting and consulting with aboriginal communities and summary of key deliberations and achievements.
VOIT 47 - Contract opportunities provided to the Alexis Nakota Sioux Nation (i.e. logging and silviculture) (6.1.2.1).	Provide contract opportunities to Alexis annually.	Summary of contract opportunities offered to the Alexis, those undertaken and the status of each.	Summary of contract opportunities offered to the Alexis, those undertaken and the status of each.
VOIT 48 - Number of Environmental Co-Stewardship Committee (ECSC) meetings (6.1.3.1).	Hold four (4) ECSC meetings annually.	(i) Updates to ECSC membership.  (ii) Summary of meetings.	(i) Updates to ECSC membership.  (ii) Summary of meetings.
VOIT 49 - Meet expectations of Section 5 of CSA Z809-2002 - Public Participation Requirements (6.2.1.1).	Adhere to the communication initiatives that satisfy the expectations of Section 5 of CSA Z809-2002.	(i) Summary of status of implementation of DFMP Implementation Communication Plan and rationale for any deviation.  (ii) Summary of all consultation and communication activities.	(i) Summary of status of implementation of DFMP Implementation Communication Plan and rationale for any deviation.  (ii) Summary of all consultation and communication activities.
VOIT 50 - Contribution to, and implementation of, a management plan for Huestis Forest (6.2.2.1).	Work with Alberta gov't. and other stakeholders, as a of Board of Directors, to develop and implement a management plan to enhance the demonstration and educational value of Huestis Forest, by December 31, 2008.	(i) Status of the creation of the committee and development and implementation of management plan.  (ii) Summary of initiatives that Millar Western has undertaken in support of Huestis Demonstration Forest.	(i) Status of the creation of the committee and development and implementation of management plan.  (ii) Summary of initiatives that Millar Western has undertaken in support of Huestis Demonstration Forest.
VOIT 51 - Development and incorporation of Virtual Open House into corporate website (6.3.1.1).	Develop and incorporate virtual open house into existing Millar Western Internet website by July 31, 2008.	(i) Status of the implementation of the virtual open house.  (ii) Following implementation, the number of hits to this component of the website.	(i) Status of the implementation of the virtual open house.  (ii) Following implementation, the number of hits to this component of the website.
VOIT 52 - Establishment of permanent Public Advisory Committee (PAC) and number of group meetings (6.3.2.1).	Establish Public Advisory Committee by December 31, 2007, and hold a minimum of four (4) meeting annually, starting from the date that the group is established.	(i) Status of the establishment of the PAC.  (ii) Summary of membership, meeting dates and topics covered at each meeting.	
VOIT 53 - Implementation of a 24-hour toll-free telephone hotline (6.3.3.1).	Launch 24-hour toll-free hotline by February 29, 2008.	Status of the implementation of the 24-hour hotline.	Status of the implementation of the 24-hour hotline.
CC 1 - Reconcile SHS, following DFMP approval.	Complete reconciliation by December 31, 2007.		Summary of the process used and the resulting changes.

Indicator	Target	Annual Reporting	Stewardship Reporting
CC2 - Re-run BAP analysis on SHS submitted with 2007 DFMP.	Submit to Alberta gov't. by November 30, 2008.	(i) Condensed version of report to Alberta gov't.  (ii) Summary of any additional analysis.	(i) Condensed version of report to Alberta gov't.  (ii) Summary of any additional analysis.
CC 3 - Maintain DFA Harvest Planning Committee	Ongoing	Summary of committee's composition, structure and key accomplishments.	Summary of committee's composition, structure and key accomplishments.
CC 4 - Develop and implement Industrial Salvage tracking process.	Submit to Alberta gov't. by October 31, 2008.	Summary of progress in developing, Alberta gov't's review and approval, and implementation of process.	Summary of progress in developing, Alberta gov't's review and approval, and implementation of process.
CC 5 - Revise FMA Operating Ground Rules.	Implement revised OGRs by April 30, 2008.	Summary of progress of OGR revisions and implementation.	Summary of progress of OGR revisions and implementation.
CC 6 - Maintain DFA Silviculture Committee.	Ongoing	Summary of committee's composition, structure and key accomplishments.	Summary of committee's composition, structure and key accomplishments.
CC 7 - Develop Alternative Regeneration Standards (ARS).	Begin development of ARS by November 30, 2008.	Summary of progress on development, approval and implementation of ARS.	Summary of progress on development, approval and implementation of ARS.
CC 8 - Develop specific regeneration strategies to mitigate insect and disease infestations.	Initiate development by December 31, 2008.	Summary of progress on development and implementation of strategies.	Summary of progress on development and implementation of strategies.
CC 9 - Develop and secure Alberta gov't. approval of a wider suite of managed stand yield curves.	Secure approval of data collection program acceptable to Alberta gov't. by February 29, 2008.	Summary of the progress in development, approval and incorporation of curves into forest management planning initiatives.	Summary of the progress in development, approval and incorporation of curves into forest management planning initiatives.
CC 10 - Implement growth and yield initiatives.	As defined in Growth and Yield Plan (Appendix VIII).	(i) Summary of implementation of each of the programs under the G & Y Plan.  (ii) Status of the submission / review / approval of the revised G & Y Plan.  (iii) Summary of any changes to the G & Y Plan from annual internal review.	(i) Summary of implementation of each of the programs under the G & Y Plan.  (ii) Status of the submission / review / approval of the revised G & Y Plan.  (iii) Summary of any changes to the G & Y Plan from annual internal review.
CC 11 - Investigate new technologies for developing forest and vegetation inventory for DFA.	Ongoing with further investigations completed before the end of 2011.		(i) Summary of any planned inventory investigations.  (ii) Summary of the results of any completed inventory investigations.

Indicator	Target	Annual Reporting	Stewardship Reporting
CC 12 - Develop and implement operational risk rating system to provide guidance in determining environmental conditions in which forest operations can be conducted in an environmentally sound manner.	Implement by October 31, 2008.	Summary of the progress in development and implementation of operational assessment tools and techniques.	Summary of the progress in development and implementation of operational assessment tools and techniques.
CC 13 - Investigate the need for BAP SHEs and HSMs validation and refinement.	Implement investigation and refinements by November 30, 2008.		(i) Summary of investigative and refinement initiatives planned or undertaken and the progress of each.  (ii) Summary of the findings and any recommendations for future refinement or incorporation into planning or operational activities.

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