

**Forest Management Plan  
Approval Decision**

**Forest Management Unit G16**

**Weyerhaeuser Company Ltd.**

**Grande Prairie, Alberta**

**Forest Management Agreement  
#6900016**

**Date: March 20, 2012  
Effective: May 1, 2011**

Approved by: *Original signed by*  
**Darren Tapp, MBA, MF, RPF  
Executive Director,  
Forest Management Branch**

## ***Executive Summary***

*The Weyerhaeuser Company Ltd., Grande Prairie Forest Management Plan (FMP) dated July 6, 2011 is approved subject to the satisfactory completion of the Approval Conditions contained in this document.*

*The Conditions herein are consistent with the terms of the Forest Management Agreement (FMA) and failure by Weyerhaeuser to fulfill the direction provided in this Approval Decision will place the Company in default of its FMA.*

*The Forest Management Plan has been validated<sup>1</sup> by a Regulated Forestry Professional (RFP). The Department recognizes RFP-validated work as complete, accurate, and prepared with professional due diligence. The FMP has been reviewed and approved by Alberta Government RFPs.*

## ***Approval Decision Conditions***

<b><i>Approval Condition</i></b>	<b><i>Requirement</i></b>	<b><i>Approval Authority</i></b>	<b><i>Date</i></b>
6.1	<i>Public Consultation</i>	<i>Area Manager, Smoky Area</i>	<i>On going</i>
6.2	<i>First Nations Consultation</i>	<i>Area Manager, Smoky Area</i>	<i>On going</i>
7.1	<i>Mountain Pine Beetle</i>	<i>Senior Manager, Forest Planning Section</i>	<i>On going</i>
9.1	<i>Spatial Harvest Sequence</i>	<i>Senior Manager, Forest Planning Section</i>	<i>On going</i>
11.1	<i>Stand Level Structure Retention</i>	<i>Senior Manager, Forest Planning Section</i>	<i>On going</i>
12.1	<i>Grazing Timber Agreement</i>	<i>Forestry Program Manager, Smoky Area</i>	<i>On going</i>
13.1	<i>Silviculture Strategies</i>	<i>Senior Manager, Reforestation Section</i>	<i>September 1, 2012</i>
14.1	<i>Regenerating Landbase – ARIS Records Validation</i>	<i>Senior Manager, Reforestation Section</i>	<i>June 1, 2012</i>
15.1	<i>Enhanced Silviculture</i>	<i>Senior Manager, Reforestation Section</i>	<i>On going</i>
16.1	<i>Primary and Secondary Volume Tracking</i>	<i>Senior Manager, Timber Auditing, Production and Revenue Section</i>	<i>June 30, 2012</i>

<sup>1</sup> Refer to the *Alberta Forest Management Planning Standard, Annex 2* for professional validation requirements.

**Approval Decision Conditions (continued)**

<b>Approval Condition</b>	<b>Requirement</b>	<b>Approval Authority</b>	<b>Date</b>
17.1	Industrial Timber Salvage	Senior Manager, Timber Production, Auditing and Revenue Section	On going
18.1	Delivered Timber Volume Monitoring Program	Senior Manager, Timber Auditing, Production and Revenue Section	June 30, 2012
19.1	Growth and Yield Plan	Senior Managers, Resource Analysis and Reforestation Section	January 31, 2013
20.1	Performance Monitoring	Senior Manager, Forest Planning Section	December 1, 2015
21.1	Future Forest Management Plans	Senior Manager, Forest Planning Section	April 30, 2021

**Approved Annual Allowable Cuts<sup>2</sup>**

The Approved Annual Allowable Cuts (AAC) for Periods 1 (May 1, 2011 – Apr. 30, 2014) and 2 (May 1, 2014 – Apr. 30, 2019) are as follows:

- Primary coniferous AAC: 2,193,190 m<sup>3</sup> per year;
- Secondary coniferous AAC: 84,922 m<sup>3</sup> per year;
- Primary deciduous AAC: 1,147,739 m<sup>3</sup> per year;
- Secondary deciduous AAC: 330,302 m<sup>3</sup> per year.

The Approved Annual Allowable Cuts (AAC) for Periods 3 (May 1, 2019 – Apr. 30, 2024) and 4 (May 1, 2024 – Apr. 30, 2029) are as follows:

- Primary coniferous AAC: 1,233,804 m<sup>3</sup> per year;
- Secondary coniferous AAC: 80,145 m<sup>3</sup> per year;
- Primary deciduous AAC: 1,097,757 m<sup>3</sup> per year;
- Secondary deciduous AAC: 398,868 m<sup>3</sup> per year.

Refer to Tables 1 and 6 for the Historical Allocations, Tables 2 and 7 for the Approved Annual Allowable Cuts, and Tables 3 and 8 for the Quadrant Allowable Cuts.

The Department acknowledges that the coniferous AACs forecasted for periods 3 and 4 are based on assumptions of mountain pine beetle spread rates and pine timber mortality. These AACs may be amended by the Department based on an updated TSA being received and approved that incorporates the best available estimates of spread rates and tree mortality.

<sup>2</sup> Structure retention is not AAC chargeable.

***Authorization***

*The Forest Management Plan for Forest Management Unit G16 dated July 6, 2011 is approved subject to the Approval Conditions and Annual Allowable Cuts (Tables 2 and 7) presented in this Approval Decision.*

*This Forest Management Plan replaces the FMP approved May 9, 2008.*

*The AACs are effective beginning May 1, 2011.*

*The SHS contained in this FMP is effective beginning May 1, 2011.*

*The next Forest Management Plan is due by April 30, 2021.*

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## **1.0 Introduction**

The approval of Forest Management Plans is the mandate of the Executive Director of the Forest Management Branch (FMB), Forestry Division of the Department of Sustainable Resource Development (the Department). This Approval Decision documents the rationale and conditions of approval for the Weyerhaeuser Company Ltd. (Weyerhaeuser) Forest Management Plan (FMP) dated July 6, 2011.

The Conditions herein are consistent with the terms of the Forest Management Agreement (FMA) and failure by Weyerhaeuser to fulfill the direction provided in this Approval Decision will place the Company in default of its FMA. The Conditions contained herein are non-negotiable.

The FMP has been validated by a Regulated Forestry Professional (RFP). The department recognizes RFP validated work as complete, accurate, and prepared with professional due diligence. The FMP has been reviewed and approved by Alberta Government RFPs.

## **2.0 Forest Management Planning Area**

The area under consideration is Forest Management Agreement #6900016, allocated to Weyerhaeuser through Order-in-Council (O.C. 503/2007) dated February 5, 2008.

The Weyerhaeuser FMA (Forest Management Unit G16) is located in west-central Alberta and spans the Alpine, Subalpine, Montane, Upper Foothills, Lower Foothills, Dry Mixedwood and Central Mixedwood Natural Sub-regions.

In December 2008, the Alberta Land Use Framework was released, establishing the regional planning system to implement provincial policy, set land-use management objectives and determine land-use priorities. Seven planning regions were created. The Weyerhaeuser FMA is located entirely within the Upper Peace Region.

## **3.0 Background**

Weyerhaeuser's previous FMP was approved April 6, 1999. On May 9, 2008 a FMP mountain pine beetle (MPB) amendment was approved in response to Alberta's growing Mountain Pine Beetle (MPB) infestation. The FMP is prepared according to the *Alberta Forest Management Planning Standard (ver. 4.1, 2006)* and replaces the previous Forest Management Plan and MPB amendment. The new FMP introduces new information for planning, implementing and monitoring forestry operations on the FMA. This Approval Decision represents the culmination of the Department's appraisal process.

#### **4.0 Approval Decision Scope**

This Approval Decision relates to the Weyerhaeuser FMP dated July 6, 2011. All timber operators within the FMA area (FMU G16) shall conduct their activities in accordance with the approved FMP and the conditions of this Approval Decision.

Weyerhaeuser shall meet the requirements (dates and content) of the Approval Decision conditions unless the Executive Director, Forest Management Branch, agrees to alternate requirements in writing.

In this Approval Decision, **bolded text** identifies specific timelines, requirements, and the Department senior manager responsible for the review. Non-bolded text presents the rationale for the condition and specific considerations to be addressed to meet the condition.

In the event of an inconsistency between the FMP, the Approval Decision and existing, new or revised legislation or regulation, the legislation or regulation shall apply.

#### **5.0 Forest Management Plan**

The Approval Conditions contained herein direct Weyerhaeuser to complete additional work to enhance the information presented. The Department posts approved FMPs on its website for enhanced public access to plans. Weyerhaeuser remains obligated to make the approved FMP available to the public.

## **6.0 Public and First Nations Consultation**

The Weyerhaeuser Forest Management Agreement requires Weyerhaeuser to conduct presentations and reviews of proposed Forest Management Plans with the public and with potentially affected First Nations. After the presentations and reviews are complete, the Company is required to incorporate its responses to the public and First Nations into the Forest Management Plan.

In my opinion, Weyerhaeuser completed adequate aboriginal consultation on most strategic-level decisions being made during Forest Management Plan development. It also carried out reasonable and on-going public and stakeholder consultation and addressed the issues to the extent possible given the limited scope of the FMP. Weyerhaeuser is encouraged to maintain its efforts to conduct meaningful public consultation throughout FMP implementation.

The following is required:

### ***Approval Condition 6.1 – Public Consultation***

- i. Weyerhaeuser shall keep written documentation of all issues and comments raised by the public during operational plan consultation, as well as the Company’s responses and actions to address the concerns.**

### ***Approval Condition 6.2 – First Nations Consultation***

- i. Weyerhaeuser shall continue to consult with the Aseniwuche Winewak Nation and Horse Lake First Nation during operational plan development.**
- ii. Weyerhaeuser shall adhere to *Alberta’s First Nations Consultation Guidelines on Land Management and Resource Development* for operational plan development and approvals.**
- iii. Weyerhaeuser shall document consultation efforts and activities, issues raised, and company responses. This documentation shall be made available to SRD upon request.**



## 7.0 Mountain Pine Beetle

In 2011, the number of trees attacked by mountain pine beetle (MPB) in west central Alberta is within the hundreds of thousands; many of them newly attacked. This represents an increase in newly attacked trees over last year in the Smoky and Peace River Areas. However, the risk of spread from British Columbia is decreasing due to significantly reduced inventories of susceptible pine.

The MPB infestation has extended into the Weyerhaeuser FMA. There are many MPB infested trees in parts of the FMA and the potential for successful MPB mitigation in these areas is unlikely. Therefore, it is critical to optimize merchantable coniferous fibre recovery from dead and endangered timber, maintain non-pine stands for the mid-term timber supply and initiate timely forest renewal. I expect activities over the next few years to be a combination of control (Level 1 and 2), prevention, fibre recovery and renewal. The operational changes necessary to accomplish these activities will be addressed in Annual Operating Plans (AOP).

On-going and timely communication with local Department staff is essential to manage the MPB situation. Weyerhaeuser is encouraged to continue its efforts to keep the public and stakeholders advised of its operational plans and accomplishments in addressing the MPB infestation.

If annual surveys indicate that more than 2.5% of the net landbase has been affected by the MPB infestation, an AAC re-calculation may be required.

Weyerhaeuser shall work with the Area Manager, Smoky Area to determine which compartments will be subject to the *Ground Rules Addendum – Mountain Pine Beetle Operations*.

The following is required:

### ***Approval Condition 7.1 – Mountain Pine Beetle***

- i. Weyerhaeuser shall work with Smoky Area to coordinate efforts on mountain pine beetle control, timber salvage and forest renewal activities.**

## 8.0 Watershed Impact

An assessment of the impacts to watershed values was completed for the Weyerhaeuser FMA. Of 304 watersheds assessed, 13 watersheds are considered moderate to high risk with predicted water yield increases greater than 20%.

The majority of watersheds identified as moderate to high risk are relatively small in area, ranging from 8.7 ha to 1200.2 ha, where disturbance results in higher water yield increases compared to an average-sized watershed on the FMA. Further, sensitive fisheries or drinking water values have not been identified in these watersheds.

Given the landscape and watershed characteristics of the FMA, these results are not unexpected and are acceptable outcomes from the planned operations.

## **9.0 Spatial Harvest Sequence**

The spatial (mapped) harvest sequence (SHS) is the most important output of the FMP as it implements the strategies the Companies must follow to achieve the forecasted future forest condition. While dependent on many factors, the future condition is strongly influenced by harvest patterns, intensity and schedules. It presents spatially and temporally how the integration of environmental, economic, and social values will be achieved on the FMA. Adherence to a properly planned harvest sequence is imperative. The Department recognizes that changes to the SHS will be required to manage future mountain pine beetle infestations as they are found.

The following is required of all timber operators on the FMA:

### ***Approval Condition 9.1 – Spatial Harvest Sequence***

- i. All timber operators shall follow the mapped 20-year harvest sequence as presented in the FMP.**
- ii. To address operational planning concerns, all timber disposition holders are authorized to modify the SHS by deleting, and replacing from the net landbase, no more than 20% of the total sequenced area in each compartment per decade, while harvesting no more than 100% of the total area within the SHS by compartment, by decade.**
  - a. Preference shall be given to selecting stands from the second 10-year period of the SHS (years 2019-2028) when replacing deleted stands (from ii above). Where this is not feasible, replacements may be from any other stands identified in the approved net landbase of the FMP, with priority given to pine stands that are ranked highly susceptible to MPB infestations.**
- iii. Should timber operators exceed the variance described in (ii), the Area Manager, Smoky Area may require the completion of a Compartment Assessment and the Senior Manager, Forest Planning Section may recommend the adjustment of the approved AAC to reflect the impact of the variance.**
- iv. The Department requires the variance from the SHS to be reported annually, and for the 5-year Stewardship Report to analyze the cumulative variance from the SHS and describe the potential impacts of the actual variance on the forecasts made in the FMP.**
- v. The Department will generally not request a modification of the approved harvest sequence for the first 15 years of the planning period unless required by a change in legislation or a policy approved by the Minister.**

## **10.0 Habitat for Species of Special Concern (Woodland Caribou and Grizzly Bear)**

### Woodland Caribou

I commend the Company and the department staff for working together to reasonably resolve the management of caribou habitat on the FMA. The Weyerhaeuser FMA partially overlaps the range of the Red Rock Prairie Creek, Narraway and Lingrell / Calahoo caribou herds. To accommodate this species' preference for mature forest, harvesting is limited within caribou management zones. As a result, the area of effective woodland caribou habitat is forecasted to increase over the next 50 years. I expect the companies to continue working with the Department to further refine the work started in this plan regarding caribou habitat and timber production. Alberta has published its Caribou Management Strategy with which this plan aligns. When more specific caribou habitat management guidelines are established, the FMP and operational plans shall be revised to align to address the guidelines.

### Grizzly Bear

I commend the Company and the department staff for working together to reasonably resolve the management of grizzly bear habitat on the FMA. Proposed forest management activities were assessed for their impact on grizzly bear habitat in the Weyerhaeuser FMA. The results predict negligible changes to mortality risk (<6% increase), resource selection function (<3% decrease) and safe harbour (<4% decrease). These results are acceptable for the FMA.

Alberta's Grizzly Bear Recovery Plan (GBRP) has been accepted by the Minister of Sustainable Resource Development. In the event an implementation plan for the GBRP is published, the Companies shall address its requirements in operational plans and subsequent Forest Management Plans.

## **11.0 Stand Level Structure Retention**

Throughout the province, the forest industry practices green tree retention within harvested areas to create residual stand structure. A variety of approaches and retention targets have been approved in FMPs with the view that the result will be a range of forest conditions that, when assessed, will enable a refinement of future targets. I accept Weyerhaeuser's proposal of 2.5% coniferous and 3.0% deciduous timber retention across the FMA area.

The strategy applies to all operators on the FMA and I recommend a single integrated approach for both implementation and monitoring.

I encourage the Companies to continue to investigate options for achieving the desired result while reducing the associated costs.

The following is required:

### ***Approval Condition 11.1 – Stand Level Structure Retention***

**i. All operators on the FMA shall plan and carry out their operations to achieve the FMP structure retention target. Structure retention contributing to this target shall be merchantable and shall reflect the species composition and timber profile of the original stand.**

## **12.0 Grazing Timber Agreement**

The 20-year SHS developed for the Weyerhaeuser FMP overlaps several forest grazing licenses (FGL).

The following is required:

### ***Approval Condition 12.1 – Grazing Timber Agreement***

**i. Well in advance of scheduled forest operations and in consultation with the Area Manager, Smoky Area, Weyerhaeuser shall develop Grazing Timber Agreement(s) (GTA) with potentially affected grazing disposition holders.**

**ii. All applicable GTAs shall accompany as supporting documents, each Weyerhaeuser Annual Operating Plan reviewed by the department.**

**iii. Non-harvested areas within Forest Grazing Licences shall be monitored and reported as variance from the SHS.**

**iv. The net landbase and timber supply analysis prepared for the next FMP shall address grazing issues.**

### **13.0 Silviculture Strategies**

Defining the silviculture practises that will be used to establish managed stands is important. Forest Management Plans must describe the reforestation strategies that will be implemented to achieve the forecasted timber yields from regenerated stands. Silvicultural practices must be appropriate for the local range of conditions.

The following is required:

#### ***Approval Condition 13.1 – Silviculture Strategies***

**i. By September 1, 2012 Weyerhaeuser shall complete amendments to the silviculture component of the FMP to the satisfaction of the Senior Manager, Reforestation Section. Specifically:**

**a. The recalculation of each of the seed supplies per tree species per deployment zone to be reforested using the appropriate unit amounts per kilogram as directed by the department's Alberta Tree Improvement and Seed Centre (ATISC).**

**b. An adjustment to the amount of seed required to be collected to meet the planting requirements of the ten-year SHS. This is to include specific details for each timber year where seed collection is planned, including links to planned harvesting in specific compartments.**

**ii. By September 1, 2012 Weyerhaeuser shall reconcile the number of regenerated yield curves proposed in the TSA with the regenerated yield trajectories listed within the Silviculture Matrix. Further clarification is required as to how the distinct yield curves (84 total) align with the regenerated yield trajectories (6 total). A formal agreement to this reconciliation on the FMA is required with each of the operators.**

#### **14.0 Regenerating Landbase –ARIS Records Validation**

Making reliable forecasts during forest management planning is contingent on using complete and accurate source data. Therefore, the Department requires all timber disposition holders demonstrate the data used in the regenerating landbase is consistent with the records contained in Alberta Regeneration Information System (ARIS).

The following is required:

##### ***Approval Condition 14.1 – Regenerating Landbase – ARIS Records Validation***

**ii. By June 1, 2012 ARIS records and regenerating landbase data found to be inconsistent shall be resolved and ARIS updated to the satisfaction of the Senior Manger, Reforestation Section. Weyerhaeuser shall adhere to the procedures outlined in the document entitled “Regenerating landbase – ARIS records validation procedures” dated December 2, 2009 to complete this work.**

#### **15.0 Enhanced Silviculture**

Enhanced silviculture activities will increase forecasted yield based on genetic gain incorporated into approved enhanced yield curves. Future forecasted yields from genetic programs must be reviewed prior to approval.

##### ***Approval Condition 15.1 – Enhanced Silviculture***

**i. Genetic gain other than approved in this FMP requires full review and approval of controlled parentage program plans to the satisfaction of the Senior Manager, Reforestation Section.**

#### **16.0 Primary and Secondary Volume Monitoring and Reporting**

The approved AACs for the Weyerhaeuser FMA are comprised of both primary and secondary volumes. As such, the Companies must monitor and report primary and secondary volumes separately.

The following is required:

##### ***Approval Condition 16.1 – Primary and Secondary Volume Monitoring and Reporting***

**i. By June 30, 2012, Weyerhaeuser shall develop and implement a method to monitor and report primary and secondary harvested volumes acceptable to the Senior Manager, Timber Production, Auditing and Revenue Section.**

## **17.0 Industrial Timber Salvage**

Accounting for all sources of timber volume drain is integral to ensuring the approved AACs are sustainable. In Alberta, non-forestry industrial operations contribute to this drain and must be included in the total. The FMP does not forecast timber drain from non-forestry industrial operations and therefore must be addressed as it occurs during plan implementation.

The following is required:

### ***Approval Condition 17.1 – Industrial Timber Salvage***

- i. All timber depleted (salvaged and non-salvaged merchantable timber) by non-forestry operations shall be reported and accounted for production control purposes, except for low impact seismic programs where the average line width is less than 2.5 metres and Timber Damage Assessment compensation is not requested.**
- ii. The volumes used shall be those published in the Timber Damage Assessment tables or as otherwise agreed by the Senior Manager, Timber Production, Auditing and Revenue Section.**

## **18.0 Delivered Timber Volume Monitoring Program**

Delivered volumes must be monitored and reported to allow comparisons of forecasted volumes with harvested volumes. Collection and analysis of this information will be used in conjunction with Permanent Sample Plot (PSP) data to adjust yield projections.

The following is required:

### ***Approval Condition 18.1 – Delivered Timber Volume Monitoring Program***

- i. By June 30, 2012, Weyerhaeuser shall develop a program that will compare actual delivered timber volumes to volumes anticipated by yield projections from harvested areas. This program must be acceptable to the Senior Manager, Timber Production, Auditing and Revenue Section.**

## **19.0 Long Term Fibre Sustainability**

The fibre flow proposed in the Preferred Forest Management Scenario is acceptable for the Forest Management Unit. An increase in total AAC from 2,942,944 m<sup>3</sup> per year to 3,756,152 m<sup>3</sup> per year is planned for years 1-10, followed by a reduction to 2,810,575 m<sup>3</sup> per year for years 11-20, followed by a further reduction to 2,151,879 m<sup>3</sup> per year for the remainder of the planning horizon.

The department acknowledges that the forecast coniferous fibre flows expected after year ten are based on assumptions of mountain pine beetle spread rates and pine timber mortality. As both of these factors remain uncertain, Weyerhaeuser shall update and submit for approval, a new TSA prior to 2019.

The following is required:

### ***Approval Condition 19.1 – Growth and Yield Plan***

- i. By January 31, 2013, Weyerhaeuser shall provide a revised Growth and Yield plan that includes sufficient and relevant data and analysis to validate natural and regenerated stand yields. This plan must be acceptable to the Senior Managers, Resource Analysis Section and Reforestation Section.**

## **20.0 Performance Monitoring and Reporting**

Annual Reports and 5-year Stewardship Reports are used to monitor the successful implementation of FMPs.

The following is required:

### ***Approval Condition 20.1 – Performance Monitoring***

- i. Weyerhaeuser shall submit Annual Reports and Stewardship Reports that document the operational performance of each Company's activities implementing the FMP. Where variances from the planned outcomes exist, an analysis shall discuss the reason for the variance and each Company's corrective action taken or proposed.**
- ii. A Stewardship Report acceptable to the Senior Manager, Forest Planning Section that is current to May 1, 2015 shall be submitted by December 1, 2015.**



## 21.0 Future Forest Management Plans

In accordance with the Forest Management Agreement, Weyerhaeuser shall submit an updated Forest Management Plan in 2021, unless otherwise approved by the Minister.

### *Approval Condition 21.1 – Future Forest Management Plans*

**i. Weyerhaeuser shall complete a FMP that meets the forest management planning standards and it shall be received by the Department by April 30, 2021, unless otherwise approved by the Minister.**

## 22.0 Approved Annual Allowable Cuts<sup>3</sup>

*The Approved Annual Allowable Cuts (AAC) for Periods 1 (May 1, 2011 – Apr. 30, 2014) and 2 (May 1, 2014 – Apr. 30, 2019) are as follows:*

- *Primary coniferous AAC: 2,193,190 m<sup>3</sup> per year;*
- *Secondary coniferous AAC: 84,922 m<sup>3</sup> per year;*
- *Primary deciduous AAC: 1,147,739 m<sup>3</sup> per year;*
- *Secondary deciduous AAC: 330,302 m<sup>3</sup> per year.*

*The Approved Annual Allowable Cuts (AAC) for Periods 3 (May 1, 2019 – Apr. 30, 2024) and 4 (May 1, 2024 – Apr. 30, 2029) are as follows:*

- *Primary coniferous AAC: 1,233,804 m<sup>3</sup> per year;*
- *Secondary coniferous AAC: 80,145 m<sup>3</sup> per year;*
- *Primary deciduous AAC: 1,097,757 m<sup>3</sup> per year;*
- *Secondary deciduous AAC: 398,868 m<sup>3</sup> per year.*

Refer to Tables 1 and 6 for the Historical Allocations, Tables 2 and 7 for the Approved Annual Allowable Cuts, and Tables 3 and 8 for the Quadrant Allowable Cuts.

The Department acknowledges that the coniferous AACs forecasted for periods 3 and 4 are based on assumptions of mountain pine beetle spread rates and pine timber mortality. These AACs may be amended by the Department based on an updated TSA being received and approved that incorporates the best available estimates of spread rates and tree mortality.

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<sup>3</sup> *Structure retention is not AAC chargeable.*

### **23.0 Authorization**

The Forest Management Plan for Forest Management Unit G16 dated July 6, 2011 is approved subject to the Approval Conditions and Annual Allowable Cuts (Tables 2 and 7) presented in this Approval Decision.

The SHS contained in this FMP is effective beginning May 1, 2011.

The AACs are effective beginning May 1, 2011.

This Forest Management Plan replaces the previous FMP approved April 6, 1999.

The next Forest Management Plan is due by April 30, 2021.

**Table 1. Historical Coniferous Allocations and Annual Allowable Cuts**

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Cover Group / Species	Primary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Additional Primary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Secondary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Total Approved AAC (m <sup>3</sup> )
G16	<i>Weyerhaeuser Company Limited</i>	<i>FMA6900016</i>	<i>Separate Distinct</i>	<i>All-FMU</i>	<i>C, CD, DC, D</i>	<i>1,690,664</i>	<i>248,938</i>	<i>84,435</i>	<i>2,024,037</i>
G16		<i>Local Use</i>	<i>Separate Distinct</i>	<i>All-FMU</i>	<i>C, CD, DC, D</i>	<i>7,212</i>	<i>1,062</i>	<i>360</i>	<i>8,634</i>
G16	FMA AAC Subtotal	FMA6900016	Separate Distinct	All-FMU	C, CD, DC, D	1,697,876	250,000	84,795	2,032,671
<b>FMU G16 Total</b>						<b>1,697,876</b>	<b>250,000</b>	<b>84,795</b>	<b>2,032,671</b>

Notes:

Effective date: May 1, 2007

**Table 2. Approved Coniferous Allocations and Annual Allowable Cuts**

Effective Date: May 1, 2011

Future Approved Effective Date: May 1, 2019

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Cover Group / Species	Primary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Secondary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Total Approved AAC (m <sup>3</sup> )	Future Approved Primary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Future Approved Secondary Coniferous AAC (m <sup>3</sup> ) 15+/10/15 cm	Future Approved Total AAC (m <sup>3</sup> )
G16	Weyerhaeuser Company Limited	FMA6900016	Separate Distinct	All-FMU	C, CD, DC, D	2,184,878	84,600	2,269,478	1,225,697	79,618	1,305,315
G16		Local Use	Separate Distinct	All-FMU	C, CD, DC, D	8,312	322	8,634	8,107	527	8,634
G16	FMA AAC Subtotal	FMA6900016	Separate Distinct	All-FMU	C, CD, DC, D	2,193,190	84,922	2,278,112	1,233,804	80,145	1,313,949
<b>FMU G16 Total</b>						<b>2,193,190</b>	<b>84,922</b>	<b>2,278,112</b>	<b>1,233,804</b>	<b>80,145</b>	<b>1,313,949</b>

**Table 3. Coniferous Periodic Allowable and Quadrant Authorized Allowable Cuts**

3.1	<b>G16</b>	<b>Weyerhaeuser Company Limited</b>	<b>Disposition: FMA6900016</b>								
		<b>Period Start:</b>	1-May-08	<b>Period End:</b>	30-Apr-13						
<b>Period Segment Start Date</b>	<b>Period Segment End Date</b>	<b>Years in Period Segment</b>	<b>Primary Approved Harvest Level (m<sup>3</sup>/yr)</b>	<b>Additional Approved Harvest Level (m<sup>3</sup>/yr)</b>	<b>Secondary Approved Harvest Level (m<sup>3</sup>/yr)</b>	<b>Primary PAC Contribution (m<sup>3</sup>)</b>	<b>Additional Primary PAC Contribution (m<sup>3</sup>)</b>	<b>Secondary PAC Contribution (m<sup>3</sup>)</b>	<b>Total PAC Contribution (m<sup>3</sup>)</b>	<b>Notes</b>	
1-May-08	30-Apr-11	3.0000000000	1,697,876	250,000	84,795	5,093,628.0000	750,000.0000	254,385.0000	6,098,013.0000		
01-May-11	30-Apr-13	2.0000000000	2,193,190	0	84,922	4,386,380.0000	0.0000	169,844.0000	4,556,224.0000		
<b>Periodic Reconciliation Volume (m<sup>3</sup>)</b>						0	0	0	0		
<b>PAC Total</b>						<b>9,480,008</b>	<b>750,000</b>	<b>424,229</b>	<b>10,654,237</b>		

**Table 4. Weyerhaeuser Company Limited (Grande Prairie) FMA Coniferous Chargeability**  
**Effective Date: May 1, 2011**

FMU	Company Name	Disposition Number	Coniferous Species Used in AAC	Species NOT Chargeable to AAC	Rights to Species NOT Chargeable to AAC	Structure Retention (%)	Structure Retention (%) Accounted for in AAC	Net Landbase Deletions and Deferrals	Net Landbase Deletions and Deferrals: Rights to Timber	Industrial Salvage Chargeability Strategy
All dispositions and FMUs (unless otherwise noted)			All	None	N/A	2.5	Yes - Structure Retention is not AAC chargeable	See Table 3-2 in Forest Management Plan and Timber Supply Forecasting Report	See Weyerhaeuser Grande Prairie FMA document	All industrial salvage volumes are AAC chargeable

**Table 5. Weyerhaeuser Company Limited (Grande Prairie) FMA Coniferous Utilization**

Effective Date: May 1, 2011

FMU	Company Name	Disposition Number	AAC Type	Cover Group / Species	Utilization used to determine Harvest Level in PFMS				Operational Utilization				
					Top Diameter (cm)	Stump Diameter (cm)	Minimum Length (m)	Stump Height (cm)	Top Diameter (cm)	Stump Diameter (cm)	Minimum Length (m)	Stump Height (cm)	Coniferous Harvest Level (m <sup>3</sup> /yr) based on Operational Utilization
All dispositions, FMUs and AAC types (unless otherwise noted)			All	All	10	15	3.66	15	N/A	N/A	N/A	N/A	N/A

**Table 6. Historical Deciduous Allocations and Annual Allowable Cuts**

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Volume Supply Area	Cover Group / Species	Primary Deciduous AAC (m <sup>3</sup> ) 15+/11/15 cm	Secondary Deciduous AAC (m <sup>3</sup> ) 15+/10/15 cm	Total Approved AAC (m <sup>3</sup> )
G16	Weyerhaeuser Company Limited	FMA6900016	Separate Distinct	All-FMU	n/a	C, CD, DC, D	101,898	2,994	104,892
G16		Local Use	Separate Distinct	All-FMU	n/a	C, CD, DC, D	0	10,000	10,000
G16	FMA AAC Subtotal	FMA6900016	Separate Distinct	All-FMU	n/a	C, CD, DC, D	101,898	12,994	114,892
G16	Weyerhaeuser Company Limited	FMA6900016	Separate Distinct	All-FMU	VSA 1	D	33,108	0	33,108
G16	Tolko Industries Ltd.	DTAG010001	Separate Distinct	All-FMU	VSA 2	C, CD, DC, D	70,952	9,048	80,000
G16	Ainsworth Gp Ltd.	DTAG160001	Separate Distinct	All-FMU	n/a	C, CD, DC, D	925,452	118,018	1,043,470
G16	Unallocated	Unallocated	Separate Distinct	All-FMU	VSA 2	C, CD, DC, D	45,232	5,768	51,000
<b>FMU G16 Total</b>							<b>1,176,642</b>	<b>145,828</b>	<b>1,322,470</b>

Notes:

Effective date: May 1, 2009



**Table 7. Approved Deciduous Allocations and Annual Allowable Cuts**  
**Effective Date: May 1, 2011**

Future Approved Effective Date: May 1, 2019

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Volume Supply Area	Cover Group / Species	Primary Deciduous AAC (m <sup>3</sup> ) 15+/11/15 cm	Secondary Deciduous AAC (m <sup>3</sup> ) 15+/10/15 cm	Total Approved AAC (m <sup>3</sup> )	Future Approved Primary Deciduous AAC (m <sup>3</sup> ) 15+/11/15 cm	Future Approved Secondary Deciduous AAC (m <sup>3</sup> ) 15+/10/15 cm	Future Approved Total AAC (m <sup>3</sup> )
G16	Weyerhaeuser Company Limited	FMA6900016	Separate Distinct	All-FMU	n/a	C, CD, DC, D	73,883	31,117	105,000	75,556	29,444	105,000
G16		Local Use	Separate Distinct	All-FMU	n/a	C, CD, DC, D		10,000	10,000		10,000	10,000
G16	FMA AAC Subtotal	FMA6900016	Separate Distinct	All-FMU	n/a	C, CD, DC, D	73,883	41,117	115,000	75,556	39,444	115,000
G16	Weyerhaeuser Company Limited	FMA6900016	Separate Distinct	All-FMU	VSA 1	D	33,000		33,000	33,000		33,000
G16	Tolko Industries Ltd.	DTAG010001	Separate Distinct	All-FMU	VSA 2	C, CD, DC, D	71,809	8,191	80,000	58,679	21,321	80,000
G16	Ainsworth Gp Ltd.	DTAG160001	Separate Distinct	All-FMU	VSA 1	C, CD, DC, D	626,984	249,129	876,113	609,753	291,183	900,936
G16	Ainsworth Gp Ltd.	DTAG160001	Separate Distinct	All-FMU	VSA 2	C, CD, DC, D	295,409	27,519	322,928	283,361	33,328	316,689
G16	Unallocated	Unallocated	Separate Distinct	All-FMU	VSA 2	C, CD, DC, D	46,654	4,346	51,000	37,408	13,592	51,000
<b>FMU G16 Total</b>							<b>1,147,739</b>	<b>330,302</b>	<b>1,478,041</b>	<b>1,097,757</b>	<b>398,868</b>	<b>1,496,625</b>

**Table 8. Deciduous Periodic Allowable and Quadrant Authorized Allowable Cuts**

8.1	G16	Weyerhaeuser Company Limited (VSA 1)	Disposition: FMA6900016						
		Period Start:	1-May-08	Period End:	30-Apr-13				
Period Segment Start Date	Period Segment End Date	Years in Period Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary PAC Contribution (m <sup>3</sup> )	Secondary PAC Contribution (m <sup>3</sup> )	Total PAC Contribution (m <sup>3</sup> )	Notes	
1-May-08	30-Apr-11	3.0000000000	33,108	0	99,324.0000	0.0000	99,324.0000	Volume is to be sourced from VSA 1 area only, as per FMA Agreement 6900016 - Paragraph 7 (1) (b).	
01-May-11	30-Apr-13	2.0000000000	33,000	0	66,000.0000	0.0000	66,000.0000	Volume is to be sourced from VSA 1 area only, as per FMA Agreement 6900016 - Paragraph 7 (1) (b).	
Periodic Reconciliation Volume (m <sup>3</sup> )					0	0	0		
<b>PAC Total</b>					<b>165,324</b>	<b>0</b>	<b>165,324</b>		
8.2	G16	Weyerhaeuser Company Limited	Disposition: FMA6900016						
		Period Start:	1-May-08	Period End:	30-Apr-13				
Period Segment Start Date	Period Segment End Date	Years in Period Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary PAC Contribution (m <sup>3</sup> )	Secondary PAC Contribution (m <sup>3</sup> )	Total PAC Contribution (m <sup>3</sup> )	Notes	
1-May-08	30-Apr-11	3.0000000000	101,898	12,994	305,694.0000	38,982.0000	344,676.0000	Volume is sourced from VSA 1 and VSA 2.	
01-May-11	30-Apr-13	2.0000000000	73,883	41,117	147,766.0000	82,234.0000	230,000.0000	Volume is sourced from VSA 1 and VSA 2. 6,518 m <sup>3</sup> /yr primary deciduous and 1,238 m <sup>3</sup> /yr secondary deciduous has been sequenced in VSA 2 (Saddle Hills) area.	
Periodic Reconciliation Volume (m <sup>3</sup> )					0	0	0		
<b>PAC Total</b>					<b>453,460</b>	<b>121,216</b>	<b>574,676</b>		
8.3	G16	Tolko Industries Ltd. (VSA 2)	Disposition: DTAG010001						
		Quadrant Start	1-May-09	Quadrant End	30-Apr-14				
Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary Quadrant Contribution (m <sup>3</sup> )	Secondary Quadrant Contribution (m <sup>3</sup> )	Total Quadrant Contribution (m <sup>3</sup> )	Notes	
1-May-09	30-Apr-11	2.0000000000	70,952	9,048	141,904.0000	18,096.0000	160,000.0000		
01-May-11	30-Apr-14	3.0000000000	71,809	8,191	215,427.0000	24,573.0000	240,000.0000	Volume is to be sourced from VSA 2 area (Saddle Hills) only, as per Certificate DTAG010001.	
Quadrant Reconciliation Volume (m <sup>3</sup> )					160,170	0	160,170	2004-2009 reconciliation volume of 160,170m <sup>3</sup> , as per the approval letter of December 21, 2010	
<b>QAAC Total</b>					<b>517,501</b>	<b>42,669</b>	<b>560,170</b>		

**Table 8. Deciduous Periodic Allowable and Quadrant Authorized Allowable Cuts**

8.4	G16 Ainsworth Gp Ltd.		Disposition: DTAG160001						
	Quadrant Start 1-May-10		Quadrant End 30-Apr-15						
	Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary Quadrant Contribution (m <sup>3</sup> )	Secondary Quadrant Contribution (m <sup>3</sup> )	Total Quadrant Contribution (m <sup>3</sup> )	Notes
	1-May-10	30-Apr-11	1.0000000000	925,453	118,018	925,453.0000	118,018.0000	1,043,471.0000	Volume is to be sourced from VSA 1 and VSA 2 areas as per allocations approved effective May 1, 2007.
	01-May-11	30-Apr-15	4.0000000000	626,984	249,129	2,507,936.0000	996,516.0000	3,504,452.0000	Volume is to be sourced from VSA 1 area only as per PFMS, 2012 FMP.
	Quadrant Reconciliation Volume (m <sup>3</sup> )					0	0	0	
	<b>QAAC Total</b>					<b>3,433,389</b>	<b>1,114,534</b>	<b>4,547,923</b>	
8.5	G16 Ainsworth Gp Ltd. (VSA 2)		Disposition: DTAG160001						
	Quadrant Start 1-May-11		Quadrant End 30-Apr-15						
	Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary Quadrant Contribution (m <sup>3</sup> )	Secondary Quadrant Contribution (m <sup>3</sup> )	Total Quadrant Contribution (m <sup>3</sup> )	Notes
	1-May-11	30-Apr-15	4.0000000000	295,409	27,519	1,181,636.0000	110,076.0000	1,291,712.0000	Volume is to be sourced from VSA 2 area (Saddle Hills) only as per Table 11-5, 2012 FMP.
	Quadrant Reconciliation Volume (m <sup>3</sup> )					0	0	0	
	<b>QAAC Total</b>					<b>1,181,636</b>	<b>110,076</b>	<b>1,291,712</b>	
8.6	G16 Unallocated		Disposition: Unallocated						
	Quadrant Start 1-May-08		Quadrant End 30-Apr-13						
	Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m <sup>3</sup> /yr)	Secondary Approved Harvest Level (m <sup>3</sup> /yr)	Primary Quadrant Contribution (m <sup>3</sup> )	Secondary Quadrant Contribution (m <sup>3</sup> )	Total Quadrant Contribution (m <sup>3</sup> )	Notes
	1-May-08	30-Apr-11	3.0000000000	45,232	5,768	135,696.0000	17,304.0000	153,000.0000	Volume is to be sourced from VSA 2 area (Saddle Hills) only.
	01-May-11	30-Apr-13	2.0000000000	46,654	4,346	93,308.0000	8,692.0000	102,000.0000	Volume is to be sourced from VSA 2 area (Saddle Hills) only.
	Quadrant Reconciliation Volume (m <sup>3</sup> )					0	0	0	
	<b>QAAC Total</b>					<b>229,004</b>	<b>25,996</b>	<b>255,000</b>	

**Table 9. Weyerhaeuser Company Limited (Grande Prairie) FMA Deciduous Chargeability**  
 Effective Date: May 1, 2011

FMU	Company Name	Disposition Number	Deciduous Species Used in AAC	Species NOT Chargeable to AAC	Rights to Species NOT Chargeable to AAC	Structure Retention (%)	Structure Retention (%) Accounted for in AAC	Net Landbase Deletions and Deferrals	Net Landbase Deletions and Deferrals: Rights to Timber	Industrial Salvage Chargeability Strategy
All dispositions and FMUs (unless otherwise noted)			Aw, Bw, Pb	N/A	N/A		3 Yes - Structure Retention is not AAC chargeable	See Table 3-2 in Forest Management Plan and Timber Supply Forecasting Report	See Weyerhaeuser Grande Prairie FMA document	All industrial salvage volumes are AAC chargeable

**Table 10. Weyerhaeuser Company Limited (Grande Prairie) FMA Deciduous Utilization**

Effective Date: May 1, 2011

FMU	Company Name	Disposition Number	AAC Type	Cover Group / Yield Group	Utilization used to determine Harvest Level in PFMS				Operational Utilization				
					Top Diameter (cm)	Stump Diameter (cm)	Minimum Length (m)	Stump Height (cm)	Top Diameter (cm)	Stump Diameter (cm)	Minimum Length (m)	Stump Height (cm)	Deciduous Harvest Level (m <sup>3</sup> /yr) based on Operational Utilization
All dispositions, FMUs And AAC Types(unless otherwise noted)		All		C, CD, DC (Yield Groups 1-17 and 40)	10	15	3.66	15	N/A	N/A	N/A	N/A	N/A
All dispositions, FMUs And AAC Types(unless otherwise noted)		All		D (Yield Groups 18-21)	11	15	3.66	15	N/A	N/A	N/A	N/A	N/A

**Table 11. Fiber Transfer Agreements within the Weyerhaeuser Company Limited (Grande Prairie)**

<b>Source Company</b>	<b>Source Dispositon Number</b>	<b>Transfer Type</b>	<b>Company Directed To</b>	<b>Species Group</b>	<b>Volume (m<sup>3</sup>/yr)</b>	<b>Comments</b>
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