

**Government
of Alberta** ■

Sustainable
Resource
Development

**Forest Management Plan
Approval Decision**

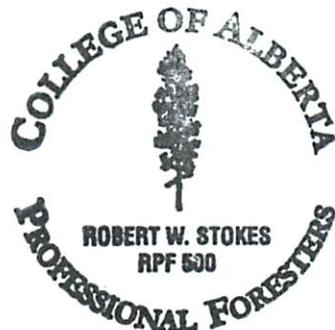
Forest Management Unit S17

**Tolko Industries Ltd.,
Vanderwell Contractors (1971) Ltd., and
Alberta Plywood Ltd.**

Slave Lake, Alberta

**Forest Management Agreement
#0600043**

Date: April 30, 2010
Effective: May 1, 2009



Approved by: _____


Robert W. Stokes, RPF
Acting Executive Director
Forest Management Branch
Forestry Division

Executive Summary

The Tolko Industries Ltd. (Tolko), Vanderwell Contractors (1971) Ltd. (VCL), and Alberta Plywood Ltd. (APL) Forest Management Plan (FMP) dated September 1, 2009 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 Tolko, VCL and APL to fulfill the direction provided in this Approval Decision will place the Companies in default of their FMA.

The Forest Management Plan has been validated¹ 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 government RFPs.

Approval Decision Conditions

<i>Approval Condition</i>	<i>Requirement</i>	<i>Approval Authority</i>	<i>Date</i>
6.1	<i>Public Consultation</i>	<i>Senior Manager, Forest Planning Section</i>	<i>On going</i>
6.2	<i>First Nations Consultation</i>	<i>Senior Manager, Forest Planning Section</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>Senior Manager, Forest Planning Section</i>	<i>On going</i>
13.1	<i>Silviculture Strategies</i>	<i>Senior Manager, Reforestation Section</i>	<i>July 1, 2010</i>
14.1 i	<i>Regenerating Landbase – ARIS Records Validation</i>	<i>Senior Manager, Reforestation Section</i>	<i>July 1, 2010</i>
14.1 ii	<i>Regenerating Landbase – ARIS Records Validation</i>	<i>Senior Manager, Reforestation Section</i>	<i>October 1, 2010</i>
15.1	<i>Alternative Regeneration Standards Mean Annual Increment Targets</i>	<i>Senior Manager, Reforestation Section</i>	<i>July 1, 2010</i>
15.2	<i>Forest Management Plan Text Update</i>	<i>Senior Manager, Reforestation Section</i>	<i>July 1, 2010</i>

¹ Refer to the Alberta Forest Management Planning Standard, Annex 2 for professional validation requirements.

Approval Decision Conditions (continued)

<i>Approval Condition</i>	<i>Requirement</i>	<i>Approval Authority</i>	<i>Date</i>
16.1	<i>Growth and Yield Plan</i>	<i>Senior Manager, Resource Analysis Section</i>	<i>April 1, 2011</i>
17.1	<i>AVI Update Plan</i>	<i>Senior Manager, Resource Analysis Section</i>	<i>October 1, 2010</i>
18.1	<i>Primary and Secondary Volume Tracking</i>	<i>Senior Manager, Timber Auditing, Production and Revenue Section</i>	<i>June 1, 2010</i>
19.1	<i>Industrial Timber Salvage</i>	<i>Senior Manager, Timber Production, Auditing and Revenue Section</i>	<i>June 1, 2010</i>
20.1	<i>Delivered Volume Monitoring Program</i>	<i>Senior Manager, Timber Auditing, Production and Revenue Section</i>	<i>June 1, 2010</i>
22.1	<i>Performance Monitoring</i>	<i>Senior Manager, Forest Planning Section</i>	<i>December 1, 2014</i>
23.1	<i>Future Forest Management Plans</i>	<i>Senior Manager, Forest Planning Section</i>	<i>April 30, 2018</i>

Approved Annual Allowable Cuts

The total Approved Annual Allowable Cut (AAC) for the Forest Management Agreement area is 1,211,910 m³ per year. The coniferous AAC is 446,334 m³ per year and the deciduous AAC is 765,576 m³ 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.

Authorization

This Forest Management Plan replaces the previous FMP approved July 17, 1998.

The Forest Management Plan for Forest Management Unit S17 dated September 1, 2009 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, 2006.

The AACs are effective beginning May 1, 2009.

The next Forest Management Plan is due by April 30, 2018.

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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 Tolko Industries Ltd. (Tolko), Vanderwell Contractors (1971) Ltd. (VCL), and Alberta Plywood Ltd. (APL) Forest Management Plan (FMP) dated September 1, 2009.

The Conditions herein are consistent with the terms of the Forest Management Agreement (FMA) and failure by Tolko, VCL and APL to fulfill the direction provided in this Approval Decision will place the Companies in default of their FMA. The Conditions contained herein are non-negotiable.

The FMP has been validated¹ 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 government RFPs.

2.0 Forest Management Planning Area

The area under consideration is Forest Management Agreement #0600043, allocated to Tolko, VCL and APL via legislative Order-in-Council (O.C. 550/2005) dated November 30, 2005.

The Tolko, VCL, and APL FMA (Forest Management Unit S17) is located in central Alberta and occurs within the Central Mixedwood and Lower Foothills Natural Sub-regions. The FMA is geographically separated into two areas; the majority of the FMA is located north and east of Lesser Slave Lake and a smaller portion is located south of the Town of Slave Lake.

In December 2008, the Alberta Land Use Framework was released, establishing a formal regional planning system to implement provincial policy, set land-use management objectives and determine land-use trade-offs. Seven planning regions were identified and the Tolko, VCL, and APL FMA is located within the Upper Athabasca and Lower Peace Regions.

3.0 Background

The last FMP prepared for this FMA area was approved in 1995, and later amended and approved on July 17, 1998. The FMP submitted September 1, 2009 was prepared under the *Alberta Forest Management Planning Standard* and replaces the 1998 Forest Management Plan. 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 Tolko, VCL, and APL FMP dated September 1, 2009. All timber operators within the FMA area (FMU S17) shall conduct their activities in accordance with the approved FMP and the conditions of this Approval Decision.

Tolko, VCL and APL 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 manager responsible for the review. Non-bolded text provides the rationale for the condition and specific considerations to be addressed in meeting 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 Tolko, VCL and APL to complete additional work to enhance the information presented. The Department posts approved FMPs on its website for enhanced public access to plans. This does not release Tolko, VCL and APL from their obligations to make the FMP available to the public.

6.0 Public and First Nations Consultation

The Tolko, VCL and APL Forest Management Agreement requires the Companies 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 Companies are required to incorporate their responses to the public and First Nations into the Forest Management Plan.

I believe the Companies 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. Tolko, VCL and APL are encouraged to maintain their efforts to conduct meaningful public consultation throughout FMP implementation.

In my opinion, the Companies completed adequate aboriginal consultation on most strategic-level decisions being made during Forest Management Plan development. However, two issues were identified that were not adequately addressed: the potential loss of fur bearer habitat from harvesting older coniferous stands and the potential impact to sensitive food, herbal or medicinal plants from herbicide application. To address these outstanding issues, the Companies shall renew their consultation efforts with the Bigstone Cree Nation and provide the Department with a summary report of their efforts.

The following is required:

Approval Condition 6.1 – Public Consultation

i. Tolko, VCL and APL shall keep written documentation of all issues and comments raised by the public during operational plan consultation, as well as the Companies responses and actions to address the concerns.

Approval Condition 6.2 – First Nations Consultation

i. Tolko, VCL and APL shall renew their consultation efforts with the Bigstone Cree Nation to address outstanding concerns around potential loss of fur bearer habitat from harvesting older coniferous stands and potential impact to sensitive food, herbal or medicinal plants from herbicide application. The Companies shall submit a summary report of their efforts to the Department. The Companies shall work with the Resource Management Advisor, Consultation and Aboriginal Relations for the Lesser Slave Area to determine reporting requirements and timelines.

ii. Tolko, VCL and APL shall continue to consult with all identified aboriginal groups during operational plan development.

iii. Tolko, VCL and APL shall adhere to *Alberta's First Nations Consultation Guidelines on Land Management and Resource Development* for operational plan development and approvals.

iv. Tolko, VCL and APL 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

The number of trees under attack by mountain pine beetle (MPB) in north central Alberta is higher than in recent years, likely as a result of good over-winter survival in 2009 and in-flights from other regions. The Grande Prairie, Peace River, Slave Lake and Whitecourt regions are the most heavily impacted. This latest dispersal will not change Alberta's strategy for managing MPB infestations. Alberta's priorities continue to be to limit the spread of MPB infestations along the eastern slopes of the Rocky Mountains and to prevent MPB from spreading eastward into the boreal forest.

Recent surveys indicate the MPB infestation has extended into the Tolko, VCL and APL 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 handled through Annual Operating Plans (AOP).

On-going and timely communication with local Department staff is essential to manage the MPB situation. Tolko, VCL and APL are encouraged to continue their efforts to keep the public and stakeholders advised of their 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.

Tolko, VCL and APL shall work with the Area Manager, Lesser Slave 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. Tolko, VCL and APL shall work with Lesser Slave Area staff 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 Tolko, VCL and APL FMA. Of 152 watersheds assessed, 30 watersheds were considered moderate to high risk with predicted water yield increases greater than 26%.

However, the majority of watersheds identified as moderate to high risk are located in regions that were burned by wildfires between 1998 and 2002. As these wildfires occurred recently, the hydrologic recovery of the affected watersheds would be minimal prior to the planned harvest periods. Further, the identified watersheds do not contain any identified sensitive fisheries or drinking water values.

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 predicted future forest condition. While dependent on many factors, the future forest 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 to achieving the forecasted future forest. The Department recognizes that changes to the SHS will be required to manage future mountain pine beetle infestations as they are found. Tolko, VCL and APL commit to following the SHS and tracking variance.

The following is required:

Approval Condition 9.1 – Spatial Harvest Sequence

- i. Tolko, VCL and APL 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 no more than 20% of the total sequenced area in each compartment by 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 2016-2025) 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, Lesser Slave 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

The Tolko, VCL and APL FMA partially overlaps the range of two woodland caribou herds – the Slave Lake and Nipisi herds. To accommodate this species' preference for mature forest, harvesting is limited within both caribou zones. As a result, the area of effective woodland caribou habitat is projected to increase over the next 50 years. I expect the Companies to continue to work with the Department to further refine the work started in this plan regarding caribou habitat and timber production. Once provincial caribou habitat management guidelines are released, any strategies developed shall be revised to align with those guidelines.

Grizzly Bear

An assessment of the proposed forest management activities on grizzly bear habitat was conducted for the Tolko, VCL and APL FMA. The results predict negligible changes (<4%) to mortality risk, resource selection function (RSF) and safe harbour. These results are acceptable for the FMA.

Alberta's Grizzly Bear Recovery Plan (GBRP) has been accepted by the Minister of Sustainable Resource Development. The Department will finalize an implementation plan for the GBRP in the near term. When this is published, the Companies shall address the requirements in their operational plans and the next Forest Management Plan.

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. Tolko, VCL and APL propose leaving a range of 0 – 3% retention on each cutblock, with an average of 1% of the volume harvested retained 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.**
- ii. Merchantable volume retained for structure is chargeable as AAC production and shall be reconciled every five years at the end of each cut control period.**

12.0 Grazing Timber Agreement

The 20-year SHS developed for the Tolko, VCL and APL 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, Tolko, VCL and APL shall develop Grazing Timber Agreement(s) (GTA) with potentially affected grazing disposition holders.**

ii. All applicable GTAs shall be included with the submission of Tolko, VCL and APL's AOPs.

iii. Unharvested areas within FGLs shall be tracked as variance against 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 projected timber yields from regenerated stands. Silvicultural practices must be appropriate for the local range of conditions.

The Department requires silviculture strategies be specific commitments to activities necessary to reforest harvested areas in order to meet regenerated yield projections and expected stand structure. The silviculture strategies presented by Tolko, VCL and APL do not adequately address Alternative Regeneration Standards (ARS). Consequently, the silviculture strategies and associated text must be updated and the Companies must develop ARS implementation strategies.

The following is required:

Approval Condition 13.1 – Silviculture Strategies

i. Tolko, VCL and APL shall work with the Department to update and clarify the silviculture strategies. Revised silviculture strategies shall be submitted by July 1, 2010 and must be acceptable to the Senior Manager, Reforestation Section. In addition to describing specific regeneration strategies for each regenerated stratum, the following shall also be addressed:

a. Tolko, VCL and APL shall describe the specific regeneration strategies that will be employed to ensure areas covered by forest grazing dispositions are successfully reforested.

b. Tolko, VCL and APL shall describe the specific strategies that will be used to replace incidental coniferous volumes.

c. Tolko, VCL and APL shall describe the specific strategies that will be implemented to rehabilitate roads, as well as processing and log decking areas.

ii. Tolko, VCL and APL shall produce a table by July 1, 2010 demonstrating there is sufficient seed in each seed zone to adequately reforest all areas scheduled for harvest in the first 10 years of the SHS. Where insufficient seed supply exists, a seed collection plan

shall be submitted to the Senior Manager, Reforestation Section that ensures seed supply sufficiency.

14.0 Regenerating Landbase –ARIS Records Validation

Making reliable forecasts during forest management planning is contingent on using accurate input 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

- i. By July 1, 2010, Tolko, VCL and APL shall demonstrate to the Department that the data associated with all post-1991 harvested areas contributing to the regenerating landbase in the timber supply analysis are consistent with ARIS.**
- ii. Where ARIS records are found to be inconsistent with regenerating landbase information, the discrepancies shall be resolved and all necessary ARIS corrections completed to the satisfaction of the Senior Manger, Reforestation Section by October 1, 2010.**
- iii. Tolko, VCL and APL shall adhere to the procedures outlined in the document entitled “Regenerating landbase – ARIS records validation procedures” dated December 2, 2009 when completing this validation.**

15.0 Alternative Regeneration Standards

As of May 1, 2010, Alternative Regeneration Standards is the standard for assessing regeneration in Alberta. All timber disposition holders with reforestation responsibility shall implement ARS assessment and reporting requirements as described in the ARS manuals.

The following is required:

Approval Condition 15.1 – Alternative Regeneration Standards Mean Annual Increment Targets

- i. By July 1, 2010, Tolko, VCL and APL shall submit culmination mean annual increment (MAI) targets that are consistent with those used in the timber supply analysis to the Senior Manager, Reforestation Section for approval.**

Approval Condition 15.2 – Forest Management Plan Text Update

- i. Tolko, VCL and APL shall update the text of the FMP to reflect the implementation of ARS. The updated text must be received by July 1, 2010 and must be acceptable to the Senior Manager, Reforestation Section.**

16.0 Growth and Yield

A credible Growth and Yield Program gathers key information for use in future timber supply analyses and monitors and verifies FMP timber yield assumptions. Tolko, VCL and APL commit to developing an updated growth and yield program.

The following is required:

Approval Condition 16.1 – Growth and Yield Plan

- i. By April 1, 2011 Tolko, VCL and APL shall complete discussions with the Department and submit a Growth and Yield Plan acceptable to the Senior Manager, Resource Analysis Section.**

17.0 Alberta Vegetation Inventory (AVI) Update

The landscape in the Slave Lake region is changing rapidly due to a combination of anthropogenic development and natural processes. Therefore, maintaining current forest inventory information is critical to making reliable forecasts during forest management planning. The Alberta Vegetation Inventory (AVI) for the Tolko, VCL and APL FMA must be updated and approved by the Department prior to commencing work on the next FMP.

The following is required:

Approval Condition 17.1 – AVI Update Plan

- i. By October 1, 2010, Tolko, VCL and APL shall submit an AVI update plan for the FMA that is acceptable to the Senior Manager, Resource Analysis Section. This plan shall outline the procedures the Companies will use to update forest cover and anthropogenic disturbance information and must include timelines for completion. The AVI update plan and associated procedures shall be approved by Alberta prior to any ‘update’ work commencing.**

18.0 Primary and Secondary Volume Tracking

The approved AACs for the Tolko, VCL and APL FMA were modeled for separate distinct landbases, resulting in primary and secondary AACs for both coniferous and deciduous volumes. As such, the Companies must track and report primary and secondary volumes separately. However, this does not prevent the Companies from integrating their operations on the FMA.

Secondary volume supplies are acknowledged to be highly variable. I encourage the Companies to work together to minimize and mitigate any adverse effects of this variation in consultation with the Department.

The following is required:

Approval Condition 18.1 – Primary and Secondary Volume Tracking

- i. By June 1, 2010, Tolko, VCL and APL shall develop and implement a method to identify and report primary and secondary harvested volume that is acceptable to the Senior Manager, Timber Production, Auditing and Revenue Section.**

19.0 Industrial Timber Salvage

Accounting for all sources of timber volume drain is critical 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 following is required:

Approval Condition 19.1 – Industrial Timber Salvage

- i. All timber depleted (salvaged and non-salvaged merchantable timber) by non-forestry operations shall be reported as production for cut 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 from the published Timber Damage Assessment tables or as otherwise agreed by the Senior Manager, Timber Production, Auditing and Revenue Section.**
- iii. By June 1, 2010, Tolko, VCL and APL shall develop and implement a salvage timber volume tracking and reporting system that is acceptable to the Senior Manager, Timber Production, Auditing and Revenue Section.**

20.0 Delivered Volume Monitoring Program

Delivered volumes must be tracked to allow comparisons of forecast volumes with harvested volumes. It is essential to collect and analyze this information so it can be used in conjunction with Permanent Sample Plot (PSP) data to adjust yield projections.

The following is required:

Approval Condition 20.1 – Delivered Volume Monitoring Program

i. By June 1, 2010, Tolko, VCL and APL shall develop a program that will compare actual delivered 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.

21.0 Long Term Fibre Sustainability

The fibre flow proposed in the Preferred Forest Management Scenario is acceptable for the Forest Management Unit. An increase from 886,230 m³ per year to 1,211,910 m³ per year is planned for 20 years, followed by a reduction to 853,645 m³ per year for the remainder of the planning horizon.

22.0 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 22.1 – Performance Monitoring

i. Tolko, VCL and APL shall submit Annual Reports and Stewardship Reports that document the operational performance of the Companies activities implementing the FMP. Where variances from the planned outcomes exist, an analysis shall discuss the reason for the variance and the Companies corrective action taken or proposed.

ii. A Stewardship Report acceptable to the Senior Manager, Forest Planning Section that is current to May 1, 2014 shall be submitted by December 1, 2014.

23.0 Future Forest Management Plans

In accordance with the Forest Management Agreement, Tolko, VCL and APL shall submit an updated Forest Management Plan in 2018, barring significant events on the FMA or changes in policy.

The following is required:

Approval Condition 23.1 – Future Forest Management Plans

i. Tolko, VCL and APL shall complete a FMP that meets the forest management planning standards and it shall be received by the Department in time for approval by April 30, 2018, unless otherwise approved by the Minister.

24.0 Approved Annual Allowable Cuts

The total AAC for the FMA is 1,211,910 m³ per year. The coniferous AAC is 446,334 m³ per year and the deciduous AAC is 765,576 m³ per year.

The coniferous AAC is split among APL (204,356 m³ per year), VCL (234,178 m³ per year) and the Community Timber Permit Program (7,800 m³ per year). VCL's portion of the AAC is made up of volume allocated at two different utilization standards – 13+/9/30 cm and 15+/11/30 cm. The volume allocated at 13+/9/30 cm and 15+/11/30 cm comprises 45.6653% and 54.3347% of the total allocation, respectively. The volume allocated at 13+/9/30 cm shall be harvested from stands meeting a 15+11/30 cm utilization standard. To convert 45.6653% of VCL's AAC to a 13+/9/30 cm utilization standard, an adjustment factor of 11.01225% was applied.

The deciduous AAC is split between Tolko (759,576 m³ per year) and the Community Timber Permit Program (6,000 m³ 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.

25.0 Authorization

This Forest Management Plan replaces the previous FMP approved July 17, 1998.

The Forest Management Plan for Forest Management Unit S17 dated September 1, 2009 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, 2006.

The AACs are effective beginning May 1, 2009.

The next Forest Management Plan is due by April 30, 2018.

Table 1. Historical Coniferous Allocations and Annual Allowable Cuts

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Cover Group / Species	Primary Coniferous AAC (m³) 15+/11/30	Total Approved AAC (m³)
S17	Alberta Plywood Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	118,425	118,425
S17	Vanderwell Contractors (1971) Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	157,462	157,462
S17	CTPP	CTPP	Separate Distinct	All-FMU	All	7,800	7,800
FMU S17 Total						283,687	283,687

Notes:

Previous effective date: May 1, 2001

Although not part of the historical approved AACs, Alberta Plywood and Vanderwell also have approved incidental volume harvest levels of 45,000 m³ per year (Alberta Plywood) and 30,000 m³ per year (Vanderwell).

Table 2. Approved Coniferous Allocations and Annual Allowable Cuts

Effective Date: May 1, 2009

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Cover Group / Species	Primary Coniferous AAC (m ³) 15+/11/30 cm	Secondary Coniferous AAC (m ³) 15+/11/30 cm	Total Approved AAC (m ³)
S17	Alberta Plywood Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	171,255	33,101	204,356
S17	Vanderwell Contractors (1971) Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	196,247	37,931	234,178
S17	CTPP	CTPP	Separate Distinct	All-FMU	All	6,537	1,263	7,800
FMU S17 Total						374,039	72,295	446,334

Table 3. Coniferous Periodic Allowable and Quadrant Authorized Allowable Cuts

3.1		S17 Alberta Plywood Ltd.		Disposition: FMA0600043							
Period Start:		1-Jan-06		Period End: 30-Apr-11							
Period Segment Start Date	Period Segment End Date	Years in Period Segment	Primary Approved Harvest Level (m ³ /yr)	Additional Approved Harvest Level (m ³ /yr)	Secondary Approved Harvest Level (m ³ /yr)	Primary PAC Contribution (m ³)	Additional Primary PAC Contribution (m ³)	Secondary PAC Contribution (m ³)	Total PAC Contribution (m ³)	Notes	
1	1-Jan-06	30-Apr-09	3.3287671233	118,425	0	45,000	394,209.2466	0.0000	149,794.5205	544,003.7671	Alberta Plywood Ltd. has approved secondary volume harvest levels of 45,000 m ³ per year for 3.3287671233 years.
2	01-May-09	30-Apr-11	2.0000000000	171,255	0	33,101	342,510.0000	0.0000	66,202.0000	408,712.0000	
Periodic Reconciliation Volume (m3)										196,200.0000	
PAC Total						736,719	0	215,997	1,148,916		

3.3		S17 Vanderwell Contractors (1971) Ltd.		Disposition: FMA0600043							
Period Start:		1-Jan-06		Period End: 30-Apr-11							
Period Segment Start Date	Period Segment End Date	Years in Period Segment	Primary Approved Harvest Level (m ³ /yr)	Additional Primary Approved Harvest Level (m ³ /yr)	Secondary Approved Harvest Level (m ³ /yr)	Primary PAC Contribution (m ³)	Additional Primary PAC Contribution (m ³)	Secondary PAC Contribution (m ³)	Total PAC Contribution (m ³)	Notes	
1	1-Jan-06	30-Apr-09	3.3287671233	157,462	0	30,000	524,154.3288	0.0000	99,863.0137	624,017.3425	Vanderwell Contractors (1971) Ltd. has approved secondary volume harvest levels of 30,000 m ³ per year for 3.3287671233 years.
2	01-May-09	30-Apr-11	2.0000000000	196,247	0	37,931	392,494.0000	0.0000	75,862.0000	468,356.0000	
Periodic Reconciliation Volume (m3)										258,403.0000	The total Periodic Reconciliation volume (m3) is the sum of five separate components that are further defined below: a. 26,358 m³: This represents the added volume resulting from the utilization conversion (11.01225%) of 15+/11/30 to 13+/9/30 for the VCL2 portion (45.6653% or 71,905 m ³ /yr) of the Primary Approved Harvest Level (157,462 m ³ /yr). This value is 7,918 m ³ /yr or 26,358 m ³ for the period 1-Jan-06 to 30-Apr-09. b. 19,738 m³: This represents the added volume resulting from the utilization conversion (11.01225%) of 15+/11/30 to 13+/9/30 for the VCL2 portion (45.6653% or 89,617 m ³ /yr) of the Primary Approved Harvest Level (196,247 m ³ /yr). This value is 9,869 m ³ /yr or 19,738 m ³ for the period 1-May-09 to 30-Apr-11. c. 18,834 m³: This represents reconciliation volume identified for the 1996-2001 quadrant within VCL2 and at 13+/9/30 utilization. d. 126,980 m³: This represents reconciliation volume identified for the 2001-2005 quadrant within VCL2 and at 13+/9/30 utilization. e. 66,493 m³: This represents reconciliation volume identified for the 2001-2005 quadrant within VCL4 and at 15+/11/30 utilization.
PAC Total						916,648	0	175,725	1,350,776		

3.4		S17 CTPP		Disposition: CTPP							
Quadrant Start:		1-Jan-06		Quadrant End: 30-Apr-11							
Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m ³ /yr)	Additional Primary Approved Harvest Level (m ³ /yr)	Secondary Approved Harvest Level (m ³ /yr)	Primary Quadrant Contribution (m ³)	Additional Primary Quadrant Contribution (m ³)	Secondary Quadrant Contribution (m ³)	Total Quadrant Contribution (m ³)	Notes	
1	1-Jan-06	30-Apr-09	3.3287671233	7,800	0	0	25,964.3836	0.0000	0.0000	25,964.3836	As per Section 8 (2)(a) of the Forest Management Agreement, the CTPP volume is an annual allocation and any unused volume will accrue to the Companies.
2	01-May-09	30-Apr-11	2.0000000000	6,537	0	1,263	13,074.0000	0.0000	2,526.0000	15,600.0000	
Quadrant Reconciliation Volume (m3)										0	
QAAC Total						39,038	0	2,526	41,564		

Table 4. Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd., and Alberta Plywood Ltd. FMA Coniferous Chargeability
 Effective Date: May 1, 2009

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)			Sw, Sb, Pl, Pj	N/A	N/A	1	Structure retention is AAC chargeable	See Table 6-1 in Net Landbase Determination document	See Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd. and Alberta Plywood Ltd. FMA document	All industrial salvage volumes are AAC chargeable

Table 5. Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd., and Alberta Plywood Ltd. FMA Coniferous Utilization
Effective Date: May 1, 2009

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 ³ /yr) based on Operational Utilization
All dispositions, FMUs and AAC types (unless otherwise noted)			All	All	11	15	4.88	30	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	Cover Group / Species	Primary Deciduous AAC (m³) 15+/10/30 cm	Secondary Deciduous AAC (m³) 15+/10/30 cm	Total Approved AAC (m³)
S17	Tolko Industries Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	411,140	185,378	596,518
S17	CTPP	CTPP	Separate Distinct	All-FMU	All	4,153	1,872	6,025
FMU S17 Total						415,293	187,250	602,543

Notes:
Previous effective date: May 1, 2001

Table 7. Approved Deciduous Allocations and Annual Allowable Cuts

Effective Date: May 1, 2009

FMU	Company Name	Disposition Number	Landbase Management Type	Source	Cover Group / Species	Primary Deciduous AAC (m ³) 15+/10/30 cm	Secondary Deciduous AAC (m ³) 15+/10/30 cm	Total Approved AAC (m ³)
S17	Tolko Industries Ltd.	FMA0600043	Separate Distinct	FMA-Only	All	546,145	213,431	759,576
S17	CTPP	CTPP	Separate Distinct	All-FMU	All	4,314	1,686	6,000
FMU S17 Total						550,459	215,117	765,576

Table 8. Deciduous Periodic Allowable and Quadrant Authorized Allowable Cuts

8.1	S17	Tolko Industries Ltd.		Disposition: FMA0600043						
		Period Start: 1-Jan-06		Period End: 30-Apr-11						
		Period Segment Start Date	Period Segment End Date	Years in Period Segment	Primary Approved Harvest Level (m ³ /yr)	Secondary Approved Harvest Level (m ³ /yr)	Primary PAC Contribution (m ³)	Secondary PAC Contribution (m ³)	Total PAC Contribution (m ³)	Notes
1		1-Jan-06	30-Apr-09	3.3287671233	411,140	185,378	1,368,589.3150	617,080.1918	1,985,669.5070	
2		01-May-09	30-Apr-11	2.0000000000	546,145	213,431	1,092,290.0000	426,862.0000	1,519,152.0000	
		Periodic Reconciliation Volume (m3)					0	0	742,345.0000	
		PAC Total					2,460,879	1,043,942	4,247,167	
8.2	S17	CTPP		Disposition: CTPP						
		Quadrant Start 1-Jan-06		Quadrant End 30-Apr-11						
		Quadrant Segment Start Date	Quadrant Segment End Date	Years in Quadrant Segment	Primary Approved Harvest Level (m ³ /yr)	Secondary Approved Harvest Level (m ³ /yr)	Primary Quadrant Contribution (m ³)	Secondary Quadrant Contribution (m ³)	Total Quadrant Contribution (m ³)	Notes
1		1-Jan-06	30-Apr-09	3.3287671233	4,153	1,872	13,824.3699	6,231.4521	20,055.8219	As per Section 8 (2)(a) of the Forest Management Agreement, the CTPP volume is an annual allocation and any unused volume will accrue to the Companies
2		01-May-09	30-Apr-11	2.0000000000	4,314	1,686	8,628.0000	3,372.0000	12,000.0000	
		Quadrant Reconciliation Volume (m3)					0	0	0	
		QAAC Total					22,452	9,604	32,056	

Table 9. Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd., and Alberta Plywood Ltd. FMA Deciduous Chargeability
 Effective Date: May 1, 2009

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	1	Structure retention is AAC chargeable	See Table 6-1 in Net Landbase Determination document	See Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd. and Alberta Plywood Ltd. FMA document	All industrial salvage volumes are AAC chargeable

Table 10. Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd., and Alberta Plywood Ltd. FMA Deciduous Utilization

Effective Date: May 1, 2009

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)	Deciduous Harvest Level (m ³ /yr) based on Operational Utilization
All dispositions, FMUs And AAC Types(unless otherwise noted)			All	All	10	15	4.88	30	N/A	N/A	N/A	N/A	N/A

Table 11. Fiber Transfer Agreements within the Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd., and Alberta Plywood Ltd. FMA Area

Source Company	Source Dispositon Number	Transfer Type	Company Directed To	Species Group	Volume (m ³ /yr)	Comments
Tolko Industries Ltd, Vanderwell Contractors (1971) Ltd. and Alberta Plywood Ltd.	FMA0600043	FMA	CTPP	Coniferous	7,800	FMA clause 8 (2) (a) (ii)
Tolko Industries Ltd, Vanderwell Contractors (1971) Ltd. and Alberta Plywood Ltd.	FMA0600043	FMA	CTPP	Deciduous	6,000	FMA clause 8 (2) (a) (i)