

Alberta-Pacific FMA Area
Forest Management Plan
(Revised)
September 2007
(Approved September 2008)

Prepared by:

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Alberta-Pacific Forest Management Area

2007 Forest Management Plan

"Forest management is about what a specific future forest becomes. No one of us has all the right answers about the future. However, if we talk, and listen, to one another, it should be possible to collectively phrase the right questions about the future forest, and that is 90% of ultimately getting the right answers."

(Gordon Baskerville, 2002.)





2007 FOREST MANAGEMENT PLAN EXECUTIVE SUMMARY

This Forest Management Plan, building on the 2000 Detailed Forest Management Plan (DFMP), and revisions from the 2006 FMP, will direct forest management activities on the Alberta-Pacific Forest Management Agreement (FMA) area in northeastern Alberta. It describes activities that will be carried by a number of forest companies, notably the four major Quota Holders, in addition to Alberta-Pacific.

The gross FMA area encompasses approximately 6.86 million hectares, of which 4.77 million hectares are not considered commercially productive. ¹ The remaining 2.1 million hectares provide fibre supply for Alberta-Pacific's kraft pulp mill near Boyle, AB, and a substantial portion of the conifer fibre supply for regional sawmills.

The plan is valid until 2016. However, the planning horizons extend through the 21st and 22nd centuries. The intent is to maintain or create a desired or preferred future forest, as determined by society's expectations and the dynamics of natural ecosystems in the boreal forest.

The objectives and strategies contained within this forest management plan (FMP) have evolved over more than a decade of wide-ranging consultation, including Alberta-Pacific's multistakeholder Forest Management Task Force, and the companies' operating experience on the landscape. The objectives and strategies are designed to produce, restore or sustain ecosystem integrity and desired conditions, uses, products and services in the FMA area over the long term.

Ecosystem management, also known as sustainable forest management (SFM), as practiced by the forest companies on the Alberta-Pacific FMA area, is the careful and skillful use of ecological, economic, social and managerial principles in managing human activities within forest ecosystems. The region's stakeholders have a variety of increasingly complex expectations for the Crown forest that inevitably lead to a spectrum of values that the plan has sought to integrate into tangible and quantifiable objectives and strategies.

Ecological or biodiversity objectives (e.g., habitat), economic objectives (e.g., wood supply) and social objectives (e.g., heritage resources) are designed to address overlapping complexity and ambiguity. This plan also strives to move the forest companies closer to a mixedwood management philosophy that is based upon the idea of working within the natural successional pathways of the boreal forest and utilizing natural processes to achieve the desired or preferred future forest.

Additionally, in the FMA area, the success of the desired future forest is predicated on increased partnerships with the energy sector through an explicit program of Integrated Land Management (ILM). ILM is land use that is co-ordinated in such a way as to create the smallest and softest human footprint on the landscape, thus reducing the cumulative effects of human activity.

This FMP and revisions moves beyond the 2000 DFMP in a number of significant areas, summarized in the table below:

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 $^{^1}$ This FMP pertains to the FMA area (O.C. 193/98-5.78 million hectares) and non-FMA areas ("donut holes" - $\sim\!1.1$ million hectares) of the N.E. Boreal Forest Region inside the outer boundaries of the $\sim\!6.86$ million hectare gross FMA area

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COMPARISON OF 2000 DFMP AND 2004 FMP

Topic	2000 DFMP	2004/07 FMP	FMP
_			Reference
Forest companies	Alberta-Pacific	Alberta-Pacific and major Quota Holders	Chapter 1 Section 1.4
Landscape description	General	More detailed and complete including watersheds, wildfire effects, mixedwood succession, and human impacts	Chapter 2
Forest inventory	Combination of Alberta Phase III and Alberta Vegetation Inventory (AVI)	Full Alberta Vegetation Inventory (AVI) coverage	Chapter 3 Section 3.1
Growth and yield	Empirical deciduous and coniferous yield curves based on Phase III data	Empirical deciduous and coniferous yield curves, plus mixedwood yield curves, based on AVI data	Chapter 3 Section 3.1
Fire salvage	No residual (burnt or green) structure specified	Targets for retention of burnt and green structure in salvage cutblocks	Chapter 3 Section 3.3
Fish and wildlife	Coarse-filter (habitat- based) ecosystem management principles	Identified species-at-risk strategies related to the Timber Supply Analysis (TSA) in addition to coarsefilter approach	Chapter 3 Section 3.5
Forest operations planning	Block level planning, two-pass harvest system. Average cutblock size ~24 hectares	Planning based on natural disturbance units; single-pass harvest system. Greater variation in block sizes to follow the natural disturbance approach	Chapter 3 Section 3.6
Mixedwood management	Overview of the mixedwood forest	Strategies (understorey protection, underplanting) designed to perpetuate the mixedwood forest	Chapter 3 Section 3.6
Stand structure	Five per cent in deciduous cutblocks, one per cent in coniferous cutblocks	Five per cent in all Alberta- Pacific deciduous and coniferous cutblocks.	Chapter 3 Section 3.6
Multiple land uses	Intent to co-ordinate activities with energy sector	Explicit Integrated Landscape Management (ILM) program	Chapter 3 Section 3.13
Annual allowable cut	Non-spatial	Spatially explicit	Chapter 3
Old forest retention	Eight per cent of productive forest	Natural range of variation (NRV) old-forest targets for	Chapter 3

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Summary

	landbase (not stratum-specific)	five major strata across the entire FMA area	
Monitoring	Limited program, Alberta-Pacific only	Explicit strategies at the block and landscape level for monitoring biodiversity, forest renewal and forest condition	Chapter 4 Section 4.3
Forest certification	Alberta Forest Products Association	Alberta-Pacific - Forest Stewardship Council (FSC)	Chapter 4 Section 4.5
certification	FORESTCARE certification	certification, Major Quota Holders all FORESTCARE	Section 4.5
		certified	

The 29 objectives and associated strategies are presented throughout the FMP document and schematically illustrated in Figure I of this summary. The "2007 FMP – Alberta-Pacific FMA Area – Objectives / Strategies / Monitoring Matrix" is presented in Appendix 13 that details the measurement criteria and monitoring activities for about 200 strategies.

The plan is divided into four distinct chapters:

- 1. Introduction, Philosophy and Goals
- 2. Landscape Patterns and Biodiversity
- 3. FMA Area Forest Management Implementation Objectives and Strategies
- 4. Performance Monitoring and Adaptive Management

Chapter 1 details Alberta-Pacific and the Quota Holders' selection of a desired or preferred sustainable forest management strategy, based on Alberta government requirements and stakeholder input, and the objectives and strategies required to implement the goals across the FMA area. Also highlighted are the Community Engagement Startegy, Poplar Farms, Aboriginal Affairs and summary descriptions of the four primary Quota Holders' sawmills and the Alberta-Pacific pulpmill.

Chapter 2 provides a brief description of boreal forest dynamics and the status of land-use activities on the FMA area. Additionally, a watershed analysis is provided.

Chapter 3 elaborates the strategies required to meet the objectives. Two notable initiatives of sustainable forest management are highlighted: Mixedwood Management (MWM) and Integrated Land Management (ILM). The preferred sustainable forest management strategy and associated annual allowable cuts are presented.

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Chapter 4 discusses adaptive management, research and development, monitoring programs, audits, certification, and stewardship reporting. An attached summary lists the research programs that are designed to enhance our knowledge about ecosystem processes and human influence on these processes.

A glossary of terms, bibliography, and six appendices are provided subsequent to the text and in stand-alone documents.

- Appendix 1: Community Engagement Strategy and Alberta's Aboriginal Consultation Strategy
- Appendix 2: Prairie Farm Rehabilitation Area (PFRA) Watershed Summary
- Appendix 3: Hydrological Effects of Forest Harvesting in the Alberta-Pacific Forest Industries Forest Management Area
- Appendix 4: FMA Area Silviculture Strategy Matrix
- Appendix 5: Alberta-Pacific Fire Control Plan
- Appendix 6: Fish and Wildlife HSI Models
- Appendix 7: Growth and Yield Strategy
- Appendix 8: Roads, Landings and Processing Areas Monitoring
- Appendix 9: MOSA Memorandum of Understanding
- Appendix 10: Alberta-Pacific FMA Area Access Development Map (AD-Map)
- Appendix 11: Alternative Regeneration Standards (ARS)
- Appendix 12: Alberta-Pacific Stewardship Research Summary
- Appendix 13: 2004 FMP Alberta-Pacific FMA Area Objectives / Strategies / Monitoring Matrix (*Commitment Matrix*)
- Appendix 14: FMA Area Timber Supply Analysis (2007 Revision) (Separate Binder)

A more extensive summary of this FMP is also available at Al-Pac's website: www.alpac.ca



Acknowledgements

To incorporate stakeholder ideals, values and expectations into the Forest Management Plan, a multi-stakeholder and multi-disciplinary approach was required. A large number of individuals from various organizations were asked to contribute to the planning process and in essence become co-authors and co-owners of the document. In particular, the **Forest Management Task Force** (FMTF) was the primary conduit for the formulation for all 29 objectives and associated strategies. ²

The FMTF is a multi-stakeholder group established in 1992 and including participants from government, forest companies, user groups and Aboriginal communities. The FMTF, Al-Pac advisors, scientists and experts were all involved throughout the dynamic 5.5-year planning process to prepare the second forest management plan for Alberta-Pacific FMA area. We apologize in advance for anyone whose name we omitted from the following list of acknowledgements.



The multi-stakeholders Forest Management Task Force participated in the production of this forest management plan.

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² Chapter 1, Objective 1 details Al-Pac's new initiatives relating to "Community Engagement" and a renewed public advisory group.



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- to my friend, Tim Juhlin who provided the compass for project initiation.

Dave Cheyne, RPF, MBA

Management Forester

Alberta-Pacific Forest Industries Inc.

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LIST OF COMMON ACRONYMS AND DEFINITIONS

AAC Annual Allowable Cut

(The amount of timber that may be harvested in a year)

Al-Pac Alberta Pacific Forest Industries

AOP Annual Operating Plan

(An annual plan that details the schedule of woodlands operations for the

forest companies.)

AVI Alberta Vegetation Inventory

(A digital forest inventory)

DFMP Detailed Forest Management Plan

FMA Forest Management Agreement

(A renewable agreement between the Alberta government and a company that grants that company the rights and obligations to manage, grow and harvest timber in a specified area on a sustained yield basis. O.C. 193/98)

FMP Forest Management Plan

FMU Forest Management Unit

(A defined area of forestland located in the Green Area of the province)

FMTF Forestry Management Task Force

FWD-SRD Fish and Wildlife Division – Alberta Sustainable Resource Development

GDP General Development Plan

(A five-year operating plan prepared, updated and submitted annually by the

timber harvest operator.)

ILM Integrated Land Management

(An initiative to assess cumulative impact effects, address and implement planning and coordination of industrial development in a manner that will reduce the cumulative effect of all activities on the landscape in terms of its

size, intensity, distribution and duration.)

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MWM Mixedwood Management

> (The managing of a forest to ensure that all its values are retained recognizing stands and landscapes with an emphasis on ecological site

processes and functions.)

OGR Operating Ground Rules

> (A document that gives direction to the Companies and the staff of Alberta SRD in keeping with the objectives and strategies of the FMP for planning,

implementation and monitoring timber operations on the FMA area.)

Public Lands and Forests Division - Alberta Sustainable Resource PLFD-SRD

Development

Alberta Government - Sustainable Resource Development SRD

TSA Timber Supply Analysis

> (The process of establishing and annual allowable cut. This includes: the netdown process, harvest criteria identification, growth and yield curves and

trajectory pathways.)

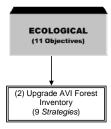


Forest management aims to approximate the patterns of the boreal forest. Photo shows the landscape in the L1 Forest Management Unit (Photo – G.Lenz)

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Figure I. Objectives for Sustainable Forest Management on the Alberta-Pacific FMA Area



- (5) Develop an Efficient Road Network (11 Strategies)
 - (6) Manage Road Developments (4 Strategies)
 - (7) Advance Soils Research (3 Strategies)
- (11) Maintain Forest Cover Patterns at the Landscape Level (11 Strategies)
- (12) Retain Forest Structure at the Stand Level (7 Strategies)
- (13) Utilize Reforestation Treatments to Meet or Exceed Silvicultural Regulations (5 Strategies)
- (20) Identify a Series of Ecological Benchmarks Representative of the Habitat Diversity of the FMA area. (6 Strategies)
- (21) Minimize the Industrial Footprint Through an ILM Program (6Strategies)
- (25) Continue to Conduct and Facilitate R & D through an Active Adaptive Management Process (2 Strategies)
- (26) Implement Monitoring Systems for Ecosystem Management (19 Strategies)

ECONOMICAL (10 Objectives) (3) Salvage Timber (8 Strategies)

- (4) Minimize Fibre Losses due to Natural Disturbances (11 Strategies)
- (9) Manage 8 FMUs on an Integrated planning system on a discreet Landbase & 2 FMUs on a Mixedwood Landbase System; A15 on MOSA Principles (10 Strategies)
- (10) Investigate the Feasibility of Improving Fibre Supply Through EFM (1 Strategy)
- (14) Maintenance & Enhancement of Silvicultural Records (2 Strategies)
- (15) Replace Incidental Conifer by Regenerating or protecting Sufficient Conifer Growing Stock (7 Strategies)
- (16) Integration of Forest Companies' Forest Management Activities (6 Strategies)
- (17) Design & Implement Alternative Regeneration Standards (ARS) (5 Strategies)
 - (18) Explore Forest Succesion & Siliculture Models (3 Strategies)
- (23) Identify Spatially Explicit Harvest Levels (Timber Supply Analysis - Annual Allowable Cut) (17 Strategies)
- (#) = Objective # in the FMP

29 Objectives 192 Strategies



- (8) Protect Species Identified as "At Risk" or as Socially Important (5 Strategies)
- (19) Contribute Towards the Socio-economic Good of the Region (8 Strategies)
- (22) Develop & Refine a System for Predicting where Heritage Resources are Located & A process for Incorporating Potential Sensitive Sites into Planning (6 Strategies)
- (27) Participate in SRD Compliance Audits (3 Strategies)
- (28) Al-Pac will Maintain ISO 14001 & FSC Certification (2 Strategies)
- (29) Continue to Develop a Stewardship Reporting Program (3 Strategies)
- (24) Within the Gross FMA area Retain "Old Forests" within the Natural Range of Variation (NRV) (8 Strategies)



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