P14 2009-2018
Forest Management Plan

Chapter 1:
Plan Development, Management Philosophy and Historical Summary

December 15, 2009

Table of Contents

List of Tables

List of Maps

1. FMP Development

1.1 Background

Forest Management Unit (FMU) P14 is a small crown management unit in north-central Alberta administered by Alberta Sustainable Resource Development (SRD). The FMU was created in 2006 and consists of 13 individual parcels of land totalling 127,331 hectares within the eastern edge of the green zone, adjacent to the white zone to the west of Manning, Alberta. This area was previously managed by SRD as independent woodlots. The 2009-2018 Forest Management Plan (FMP) is the first FMP written for FMU P14.

The creation of the single management area required a corresponding integrated and consistent approach to managing the operations of the quota and permit holders over the entire extent of the FMU. SRD and the quota holders agreed that a new FMP developed to the Alberta Forest Management Planning Standards, version 4.1 (Planning Standard) (Alberta 2006) was required. This would provide updated forest management strategies based upon sustainable forest management principles for entire FMU, while providing new timber supply and Annual Allowable Cut (AAC) levels. Boucher Bros. Lumber Ltd. (Boucher Bros.), the largest quota holder in the FMU, agreed to lead and fund the majority of the costs to develop the new FMP including the Forecasting, timber supply analysis and the Spatial Harvest Sequence (SHS) components.

In the summer of 2008, Boucher Bros. initiated the development of the 2009-2018 FMP with the submission of a Terms of Reference to develop the FMP. The Terms of Reference described the FMP content, timelines, public consultation, the participants and their roles, responsibilities and obligations, and the major planning issues. Boucher Bros. was identified as the lead for FMP development, similar to the role of a Forest Management Agreement (FMA) holder however, as the P14 FMU administrator and manager, SRD remained highly involved in FMP development. The Terms of Reference received formal approval from SRD on June 8, 2009.

1.2 Development Timelines

In anticipation of a new FMP, Boucher Bros. funded the development of a new Alberta Vegetation Inventory (AVI) and an associated volume sampling program to provide updated spatial information and to estimate timber volumes for the FMU. These products were completed and approved by SRD prior to FMP development.

In 2008 Boucher Bros. began discussions with SRD and the other quota holders to develop a new FMP for P14. These discussions cumulated with the submission by Boucher Bros. of a Terms of Reference to develop the 2009-2018 FMP in the summer of 2008. SRD reviewed and approved the Terms of Reference in the fall of 2008, although a formal approval was not grated until June 8, 2009.

Development of the 2009-2018 FMP began in earnest in February 2009 with the development of the landbase and yield curves, which were first submitted by Boucher Bros. to SRD for review in July of 2009. Agreement-in-principle for the landbase and yield curves was granted on December 17, 2009. Scenario Forecasting and discussion of initial results by the Plan Development Team (PDT) began in July 2009 with the selection of the Preferred Forest Management (PFMS) and the final revisions to the Spatial Harvest Sequence (SHS) completed by September. Early versions of the SHS were jointly developed by SRD and the quota holders and included a joint field review with a helicopter flight of all the proposed stands in July 2009. This information was used to make small adjustments to the sequence and the PFMS.

Values, Objects, Indicators and Targets (VOITs) were developed following the Planning Standards template (Annex 4, Performance Standards) and took place over a six month period. With no FMA holder, the detailed operating procedures which are typically developed by FMA holders and applied as Performance Standards for FMP implementation were not available for FMU P14. Instead, many of the VOITs will be implemented by a combination of provincial Operating Ground Rules (OGR) and SRD Directives.

1.3 Communication and Consultation

Communication and consultation activities related to the development of the 2009-2018 FMP are described in Appendix II: Communication Summary. This section highlights both the external consultations and internal communications.

1.3.1 Public Consultation

Public consultation for the development of the 2009-2018 FMP involved consultation initiatives that took place in the fall of 2008 before the formal FMP development phase began and during the formal development phase. In fall of 2009, the final consolation initiative of the formal FMP development phase took place, the presentation of the PFMS and SHS.

Only a few issues were raised during public consultations and these are summarised in the Communication Summary. Concerns that were raised during consultations were addressed either during FMP development or will be addressed during FMP implementation through operational considerations. Some issues that were raised were beyond the scope of the FMP and must be addressed at higher levels or through other processes.

1.3.2 First Nation Consultation

SRD is responsible for defining the First Nations that must be consulted. For the P14 FMU, the Duncan First Nation was the only First Nation in which consultation was required. Boucher Bros. began consolation with the Duncan First Nation in December 2008. Only a few issues were raised and the largest concern was related to the intensity and size of harvest blocks in the Sulphur Lake area. To address this concern, smaller harvest patch sizes and a lower harvesting intensity were implemented in the Forecasting and the harvest sequence development in the Sulphur Lake area (refer to Chapter 4: Forecasting and the PFMS).

1.3.3 Plan Development Team

The Plan Development Team for the 2009-2018 FMP was officially assembled in January 2009. The team members, their affiliation and their role within the team are identified in Table 1.

Table 1. Plan Development Team (PDT) members, affiliation and role.

PDT Member (A - Z)	Affiliation	Role
Benson, Al	SRD - Peace District	SRD District Contact
Burkell, Grant	The Forestry Corp.	Coordinating Author
Christian, Bob	The Forestry Corp.	Timber Supply Analyst
Cooke, Owen[1]	SRD - Peace District	SRD District Contact
Dube, Phil	Boucher Bros. Lumber Ltd.	Senior Company Representative
Fraser, Erin	SRD - Forest Planning Branch	Primary SRD Plan Development Contact
Gooding, Ted	The Forestry Corp.	Senior Forest Management Consultant
Kennedy Kris	Boucher Bros. Lumber Ltd.	Company Representative
Tansanu, Cosmin	The Forestry Corp.	Growth and Yield Analyst
Traynor, Janice	The Forestry Corp.	Landbase Analyst
Wills Stephen[2]	SRD - Forest Planning Branch	Primary SRD Plan Development Contact
Peck, Karl	SRD - Forest Planning Branch	SRD Analysis Lead

1 - Al Benson assumed Owen Cook's role in April 2009.

2 - Erin Fraser assumed Stephen Will's role in March 2009.

The primary role of the PDT was to collectively coordinate the development of the FMP, with consideration to the multiple resource values and perspectives of the various stakeholders. The PDT performed its role through the use of formal or informal meetings involving all (or the majority) of the members, or a subset of the members. The formal meetings and the key topics address at each meeting are summarized in Table 2.

Table 2. Formal PDT meeting dates and key topics discussed.

Date	Key Topics
February 10, 2009	Identify PDT members
	Roles and responsibilities of PDT members
	BBLL'S issues for resolution/direction by SRD
	SRD'S issues for resolution by BBLL
February 17, 2009	Expectations of FireSmart analysis for FMP
	Roles and responsibilities for completion of FireSmart components
June 16, 2009	Landbase and Yield Curve submissions
	Performance Standards (VOITs)
	Forecasting results
June 23, 2009	Landbase and Yield Curve submissions
	Forecasting results
	Performance Standards (VOITs)

Refer to Appendix II: Communication Summary for summaries of PDT meetings.

2. Documentation Structure

The 2009-2018 FMP is comprised of five chapters and six appendices. The contents of each chapter and appendix is outlined below.

Chapter 1: Plan Development, Management Philosophy and Historical Summary

- Describes the FMP development process, timelines and players.
- Describes the forest management philosophy and approach for the FMU.
- Describes FMU history and the current operators.

Chapter 2: Comprehensive Description of the DFA

- Describes the FMU and contains the Landscape Assessment

Chapter 3: Performance Standards (VOITs)

- Contains the VOITs including a description of current & future values.
- Targets for FMP implementation and reporting are contained in this chapter.

Chapter 4: Forecasting and the PFMS

- Contains a summary of the landbase and yield curves.
- Describes the Forecasting that was undertaken for the FMP and descriptions of the forecast modeling and results.
- Describes the trade-off analysis and the creation of the Preferred Forest Management Scenario (PFMS) and creation of the Spatial Harvest Sequence (SHS).
- Describes the outcome of the modeled indicators over the 200-year planning horizon.

Chapter 5: Implementation and Monitoring

- Describes the processes for the implementation of the PFMS including, access, harvesting, and renewal strategies, timber drain and the allocation of stands for harvest.
- Describes the monitoring program and the linkages between the strategic and the operational planning.

Appendix I: RFP Checklist

- Describes adherence to the Planning Standard

Appendix II: Communication Summary

- Describes communications undertaken to develop the FMP.

Appendix III: Landbase Development

- Describes the technical processes used to develop the landbase for Forecasting.

Appendix IV: Yield Curve Development

- Describes the technical processes used to develop the yield curves for Forecasting.

Appendix V: P14 Long-term Road Plan

- Contains the location of the access corridors for the FMU.

Appendix VI: P14 Communication Plan

- Contains the communication plan for FMP implementation.

3. Management Philosophy

3.1 Guiding Principles

The 2009-2018 FMP provides detailed direction for forest management operations for the next 10 to 20 years as well as providing strategic long term direction through the establishment of long term forest management indicators and targets. The 2009-2018 FMP meets the requirements of the Alberta Forest Management Planning Standard (Planning Standard) (Alberta 2006) as well as the appropriate policies and guidelines directives as developed by the Government of Alberta. To provide direction for plan development the following guiding principles were established:

- Sustainability of the forest, operations and communities;
- Extensive level forest management (harvesting and regeneration) treatments in all areas;
- Low annual level of harvesting activity in the northern portion of the FMU (Keg River);
- Smaller openings and more dispersed harvesting in the southern portions closer to the Duncan reserve;
- Single sustained yield unit;
- Integrated harvesting operations;
- Preference for local operators to be employed in forest operations;
- No access constrains;
- Divided landbase for timber supply determination and allocation of harvesting operations;
- All harvested areas to be promptly reforested; and
- All new intra-block roads will be reforested.

The 2009-2018 FMP will be developed to achieve a balance of social, ecological and economic objectives while considering how this balance affects the future forest condition with the aim of ensuring a lasting vibrant resource for future generations.

3.2 Mountain Pine Beetle

Pine is only a minor component in FMU P14 and mountain pine beetle had not been observed in the FMU when FMP development began. For these reasons the initial intent was that the 2009-2018 FMP would not be a mountain pine beetle plan as defined in the Alberta Mountain Pine Beetle Strategy. However, to reduce risk from mountain pine beetle, a preference for harvesting of pine dominated stands was added to the PFMS. This strategy was deemed to be sufficient given the low amounts of pine present on the FMU even after the unprecedented mountain pine beetle flight of 2009 when beetle was first observed in the area.

3.3 Guiding Documents

The Government of Alberta develops numerous plans and documents that are applicable to either the development of the FMP or to the implication of the plan. Most of these documents are listed in the appropriate location in the FMP. In addition to the Planning Standard, the primary guiding documents are:

- The Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development – May 16, 2005 (Alberta 2005);
- Grizzly Bear Recovery Plan 2008-2013;
- Mountain Pine Beetle Action Plan December 2007; and
- Woodland Caribou Recovery Plan 2004/05 - 2013/14.

There are no higher level integrated resource plans approved for the P14 area.

4. Historical Summary

4.1 Unit History

FMU P14 is a crown management unit administered by Alberta Sustainable Resource Development (SRD). Historically, the area has been managed as separate woodlots and was excluded from the adjacent Forest Management agreement areas when they were formed in the 1990's and 2000's. Traditionally, local operators harvested the area under small annual allocations providing products for local consumption. Only recently were the deciduous and coniferous timber harvesting rights within the unit were fully allocated. The majority of the deciduous timber harvesting rights were issued to Community Based Value Added Corp., with a small hold back for the Municipal Timber Use (MTU) program. All of the coniferous timber harvesting rights were issued to Boucher Bros. Lumber Ltd. (Boucher Bros.).

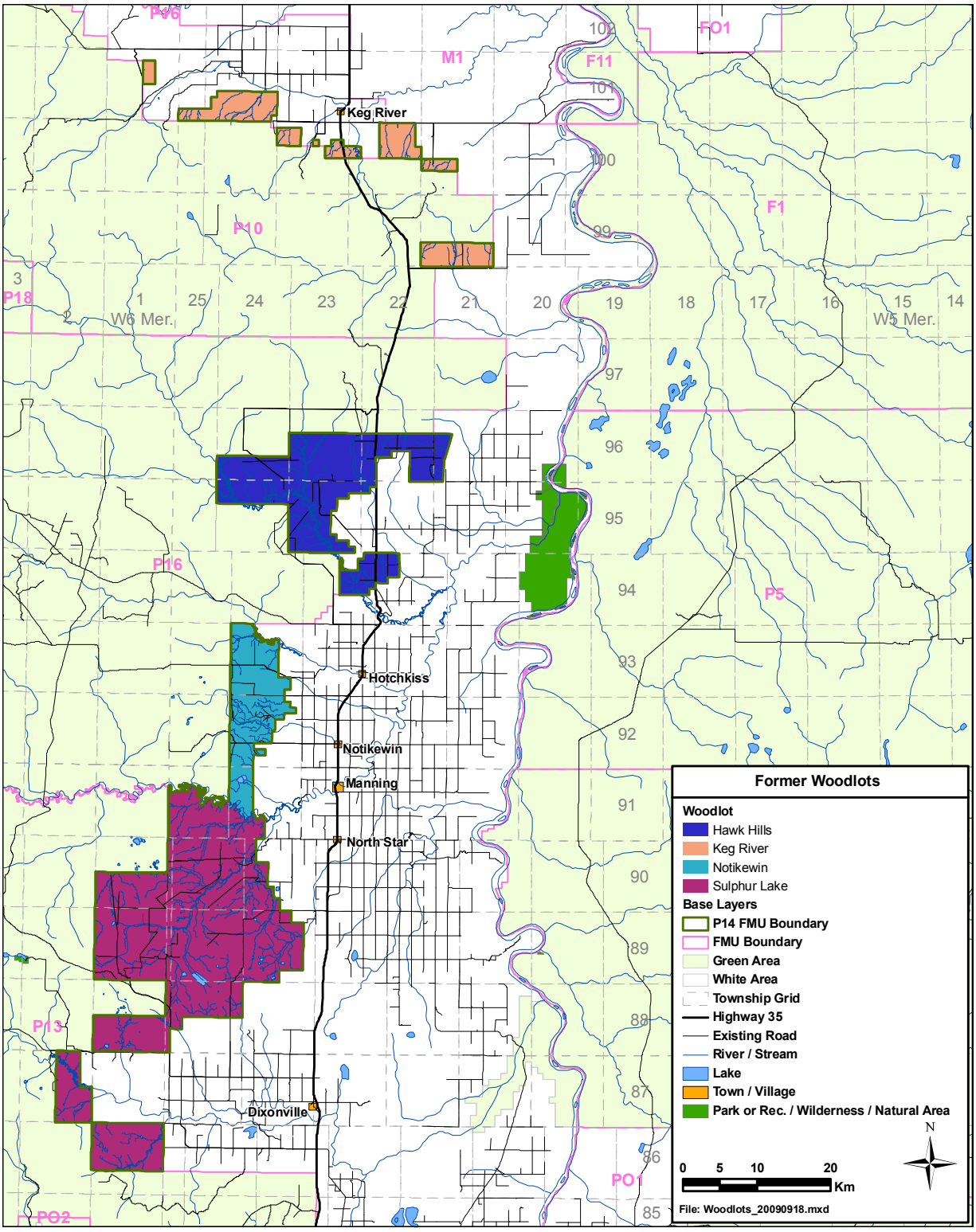
4.1.1 Recent Boundary Changes

FMU P14 was formed in 2003 when the Peace River crown woodlots in the Manning area were amalgamated into a single sustained yield unit. Initially, Weberville woodlot was to be included in the P14 FMU, but was not included in the final version. The included woodlots were (Map 1):

- Sulphur Lake woodlot 003;
- Notikewin woodlot 004;
- Hawk Hills woodlot 005; and
- Keg River woodlot 006.

P14's formation followed an earlier regional realignment exercise in which Forest Management Agreements in the Manning area were awarded to Daishowa-Marubeni International Ltd. (DMI) in 1989 and to Manning Diversified Forest Products in 2002. This left the Peace River woodlots as small isolated pockets on the edge of green zone next to the FMAs and adjacent to the white zone. Local operators continued operations in the woodlots under the Community Timber Program administered by SRD.

In 2003, the sale of the Community Timber Program coniferous allocations to Boucher Bros. and the conversion to a Coniferous Timber Quota (CTQ) required a new management approach. The woodlots were amalgamated into a single Sustained Yield Unit (SYU) which required the development of a new Forest Management Plan and associated annual allowable cut for the FMU.



Map 1. Former Woodlots merged into FMU P14

The gross area of the woodlots has remained constant over the last several decades. However, the net area available for forest management activities within has changed over time due to changes in the forest, inventory methods and operability standards (Table 3).

Table 3. Historical net operable woodlot areas

Woodlot Netlandbase Areas (ha)						
	1989 Analysis			1996 Analysis		
Woodlot Name	Coniferous	Deciduous	Total	Coniferous	Deciduous	Total
Hawk Hills	11,433	7,176	18,609	12,235	7,416	19,651
Keg River	3,240	2,687	5,927	4,281	3,225	7,506
Sulfur	13,552	26,248	39,800			
Notikewin	5,291	5,555	10,846			
Sulfur & Notikewin	18,843	31,803	50,646	23,023	37,378	60,400
Total	33,516	41,666	75,182	39,539	48,018	87,557

4.1.2 Previous AAC Determination

The first official AAC for the Peace River woodlots was established by SRD in a 1989 timber supply analysis which was followed by a 1996 analysis that was used to establish the current AAC (Table 4).

Table 4. Historical AAC for P14

Historic and Current AAC for P14 (15/10 utilization)					
Sustained Yield Unit	Analysis	Effective Date	Approval Date	AAC Type	AAC (m3/yr)
FMU P03 green zone	1989	Pre 1998	Pre 1998	Total coniferous	42,973
				Total deciduous	98,016
				Total mixedwood	22,784
				Total P03 green zone	163,773
FMU P14	1996	9/23/2003	5/1/2003	Primary coniferous	39,560
				Primary deciduous	52,286
				Secondary deciduous	24,730
				Subtotal deciduous	77,016
				Total P14	116,576

1989 TSA

The 1989 TSA was completed by SRD in November 1989. It was based on the 1980's timber supply protocols which applied a consistent sustained yield approach to timber supply across the province. The main protocols of the analysis were:

- Phase 3 forest inventory;
- Updated for recent harvest (X3 and X4 set to CC);
- All stands eligible for harvest except FFW;
- VSR 6 15/11 area weighted conifer and deciduous yield curves;
- Conifer merchantability age of 140 years;
- Deletions:
  - 45% slope stands;
  - Stands with larch as primary or secondary species;
  - Field identified non-merchantable stands;
  - 5% operational ground rule deletion for both coniferous and deciduous;
  - 10% file loss for coniferous; and
- Three methods were used to estimate sustainable harvest levels: Timber RAM, long-run sustained yield (LRSYA) and area-volume check.

The timber supply analysis was used to set the AAC and to provide strategic management direction for future harvest levels. Woodlots were run as individual sustained yield units and woodlot 3 (Sulphur Lake) and woodlot 4 (Notikewin) were also run as a combined sustained yield unit.

1996 TSA

The 1996 timber supply analysis was an update to the 1989 analysis and was completed by SRD in February 1996. It employed new timber supply protocols using Woodstock based non-spatial timber supply models, the same Phase 3 inventory used in the 1989 analysis with updates for harvesting, and new empirical age over volume yield curves replacing the VSR 6 yield curves used in 1989. The primary assumptions applied in 1996 were:

- Phase 3 forest inventory;
- Updated for recent harvesting activity (X3 and X4);
- 15/11 conifer and deciduous empirical yield curves from a localized volume sampling plan; and
- Both Woodstock modeling and LRSYA analysis were competed.

Woodlots were run as independent sustained yield units except Sulphur Lake and Notikewin woodlots were combined. The Woodstock based harvest levels were above LRSYA and thus the AAC for each woodlot was established from the LRSYA values except for the Keg River woodlot which used the Woodstock analyses values to address an age class imbalance. As a result of the divided landbase and modeling assumptions, only the primary harvest volumes were chargeable as AAC drain.

4.2 Current Operations

There are two timber disposition holders as well as the local community timber program operating in P14. The disposition holders are Boucher Bros. and Community Based Value Added Corp. Existing AAC allocations for each operator and the Commercial Timber Permits (CTPP) which are part of the community timber program are presented in Table 5. Allocations will be updated when the 2009-2018 FMP is approved.

Table 5. Existing operator harvest allocations

Existing P14 AAC Operator Allocation							
Disposition Holder	Allocation Class	Disposition	Primary Harvest Allocation (m3/yr)			Incidental Allocation (%)	
			Coniferous[1]	Deciduous[2]	Total	Coniferous	Deciduous
Boucher Bros.	Quota	CTQP140001	39,560		39,560	100%	
Community Based Value Added Corp.	DTA	DTAP140001		49,360	49,360		100%
CTPP	CTPP			2,640	2,640		
Total			39,560	52,000	91,560		

[1] primary volume only at 15/11

[2] primary volume only at 15/10

The conifer incidental from all the deciduous stands is directed to Boucher Bros. and the deciduous incidental from the conifer stands is directed to Community Based Value Added Corp. Currently, incidental volume is not charged toward the AAC drain of either company.

4.2.1 Boucher Bros. Lumber Ltd.

Mission Statement
Boucher Bros' mission statement reflects their family values:

Built on a foundation of hard work, vision, safety, and commitment, Boucher Bros. Lumber is a proud, family owned and operated company dedicated to producing lumber products of the highest calibre for the marketplace. As stewards, we share our success through caring for our people, our community and our environment.

The mission statement is implemented through core values:

- Respect;
- Teamwork;
- Continuous improvement;
- Honesty/Ethics;
- Stable Profitable Growth;
- Reputation for Quality;
- Light footprint in the forest;
- Deep feeling and respect for the environment;
- Viewing forest management as a vocation.

The values are evident in the company's commitment to the community, local people and the day to day operations.

Corporate Summary
The Boucher Family began logging and milling in Alberta in 1951 in Springburn near McLennan. The first mill was owned by Camille Boucher, the father of the present co-owners Normand and Jean Louis. In 1957 the mill was moved north of Keg River. From 1967 to 1978 the mill sawed timber for Swanson Bros in High Level but in 1968 that mill burnt. In 1979 a new mill was built by Jean Louis and Normand near Nampa Alberta, where it remains today. Since the 1950's mills have always been in the family and a new generation, two of Jean Louis sons and two of Normand's sons, are purchasing the company. The Boucher family is involved in running the operations and they work at the mill every day.

The current mill can produce 50 million board feet per year on a single shift 5 days per week. The main product is dimensional lumber from 2x3x6 to 2x10x16 with a capacity for special orders. Boucher Bros. Lumber Ltd. have contracted with Spruceland Millworks to provide stock for their value added mill in Acheson, Alberta. Boucher Bros. is also one of the partners in Community Based Value Added Corp., which is a conglomerate comprised of Northern Lights Small Loggers (14 local people from the Manning Area) who log the wood, Spruceland Millworks who produce value added products and Boucher Bros. Lumber Ltd. who undertake the initial log breakdown.

The mill employs local people as much as possible and normally employs 60 people full time and about 200 in the bush during winter operations. The 200 bush operators include truckers and loggers who also log for DMI, which assists with the successful integration of bush operations.

The Boucher's support and contribute to local causes such as the hospital, churches and local sporting events. They believe that the province allocates natural resources to companies so that the companies can contribute to the welfare of surrounding communities.

Boucher Bros. forest management section consists of two registered forest practitioners and contractors are used to fill the gaps and to provide specialty services. DMI provides all of Boucher Bros' GIS services.

Boucher Bros. obtained their first quota in 1986 when one was purchased in P4. The company usually harvests a total of about 175,000 m^3 per year of conifer and provides the incidental deciduous to DMI sometime directly and sometime through CBVAC. At the present cut levels, 114,000 m^3 or approximately 65% of volume is sourced from quotas (40,000 m^3 is not available because of the Lubicon land claim) 20,000 m^3 or 11% is from an allocation to CBVAC in the P53 management unit. The rest of the wood is comprised of a mix of incidental conifer directed to Boucher Bros., purchased private wood and salvage wood. Boucher Bros. does not have a FMA. The company sells 24,000 BDTs of softwood chips and all of its hog material to DMI.

CTQP140001 was issued to Boucher Bros Lumber Ltd for 100% of the conifer cut on October 6, 2003 when the local loggers gave up their logging allocations. The current quota quadrant is May 1, 2008 to April 30, 2013 with an AAC allocation of 39,560 m^3/yr at 15/11 utilization. . There was an overcut in the previous quadrant and the current quadrant cut is 192,308 m^3 (38,461 m^3/yr). The quota landbase is phase 3 broad cover groups sourced from C, C(d), CD and DC stands.

4.2.2 Community Based Value Added Corp.

Community Based Value Added Corp. (CBVAC) was formed in 2006. It is a conglomerate consisting of Northern Lights Small Loggers Ltd. (14 small loggers from the Manning area). Boucher Bros. of Nampa and Spruceland Millworks Inc. of Acheson Alberta. Each company owns 1/3 of the business.

The company was formed to submit a proposal on a 20,000 m^3/yr conifer allocation in the P53 management unit. When the government decided to divest itself from the P14 MTU program the company bought the deciduous quota within P14.

CBVAC has contracted with DMI for the deciduous timber in P14 and in addition will sell some to Boucher Bros. for the sawing of high end hardwoods. The Woodlands is managed by Boucher Brothers Lumber Ltd. under the partnership agreement and the same values are applied to CBVAC as to Boucher Bros Lumbers Ltd. Northern Lights Small Loggers employ 63 people in winter, Boucher Bros usually employ 60 people year round plus loggers in winter and Spruceland Millworks employ 130 people.

DTA P140001 was issued to Community Based Value added Corp. on November 3, 2006 with an AAC allocation of 49,360 m^3/yr at 15/10 utilization. There was no over cut or carry over from the previous period. The current quadrant is from May1, 2006 to April 30, 2011. The land base is determined under the phase 3 broad cover group and is sourced from D and D(c) stands.

4.2.3 Community Timber Program

The Community Timber Program is designed to manage and promote local timber in Alberta. The P14 program is administered by SRD out of the Peace River office. Deciduous Commercial Timber Permits (CTP) have been issued to local operators for 5.1% or 2,640m^3 per year of the primary deciduous cut.

4.3 Previous Management Plans

The 2009-2018 FMP will be the first management plan for this unit. No formal management plan was developed when the P14 area was managed as woodlots. Strategic forest management planning was previously addressed by establishing sustainable harvest levels for each woodlot. Before the quotas were assigned, the amount of harvesting was managed by SRD through annual timber permits. Other strategic forest values were addressed by applying the applicable procedures in the Provincial Operating Ground Rules.

Annual harvest and road development plans were developed by SRD and implemented by the permit holders and monitored by SRD to ensure compliance. These plans followed the provincial operating ground rules and contained strategies to address non-timber values such as caribou, moose and water quality.

SRD was responsible for the regeneration of all harvested blocks until 1996/97 when Boucher Bros. began to assume regeneration responsibility for coniferous blocks. Regeneration of harvested blocks on the coniferous landbase has been assisted by planting following ripper treatments while natural regeneration has been the preferred method for deciduous blocks.

5. References

Alberta Forest Management Planning Standard. 2006. Alberta Sustainable Resource Development, Public Lands and Forests Division, Forest Management Branch. Version 4.1 April 2006. 112 pages.

Government of Alberta. 2005. The Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development. 2005. Government of Alberta. May 16. 7 pages.