

1.0 Introduction

The E8 Forest Management Unit (FMU) is a crown managed unit located within the heart of the Eastern Foothills of the Rocky Mountains near the community of Grande Cache. The majority of the FMU is in the Foothills Forest Area and encompasses 219,648 hectares. It is surrounded by Alberta Newsprint Company, Weyerhaeuser, and Canadian Forest Products (CanFor) forest management areas. A small northern section in CanFor's FMA and is in the Smoky Forest Area.

Human activity has occurred in this area for hundreds of years and industrial development is relatively new. Natural resource development has been ongoing for approximately 50 years. This includes timber harvesting, oil and gas exploration, coal mining, and sand and gravel exploration. Recreation is prevalent in this area, and areas adjacent to E8 due to its proximity to the Willmore Wilderness Park, the many lakes and rivers, and the presence of mountains and foothills.

E8 is one of the few forest management units in the Province where timber has not been allocated through a Forest Management Agreement (FMA). Alberta Sustainable Resource Development (SRD) was therefore responsible for developing a Forest Management Plan (FMP) for this area. The development of this FMP began in 2004 after Weyerhaeuser Canada sold the Grande Cache mill to Foothills Forest Products Ltd (FFP). Prior to the purchase of the mill by Foothills Forest Products Inc., the E8 FMU was managed as part of the Weyerhaeuser FMA in Grande Prairie.

This plan was developed by SRD with the assistance and input from Foothills Forest Products Inc. and all applicable stakeholders and community groups. Its development was guided by the *CAN/CSA- Z809-02 Sustainable Forest Management: Requirements and Guidance Document*, the *Alberta Forest Management Planning Standard*, the *Mountain Pine Beetle Interpretive Bulletin* and the *Mountain Pine Beetle Action Plan*.

Foothills Forest Products Inc. is the primary operator holding 99.66% of the coniferous annual allowable cut (AAC) under CTQE080005 and 100% of the deciduous AAC under DTAE080001. The sawmill has been operating, under various owners, in the area for almost 30 years as a dimensional lumber manufacturing facility. FFP has been operating and managing the E8 FMU since the fall of 2004.

Foothills Forest Products holds a Coniferous Timber Quota (CTQ) and a Deciduous Timber Allocation (DTA) which encompass the majority of the AAC. Precision Forest Industries is a small company located near Grande Cache and is allocated 0.34% of the coniferous AAC.

Foothills Forest Products Inc. is a growing, privately owned company. C&C Wood Products Ltd., a B.C. based company with 30 years of forestry, and wood products value added manufacturing experience, purchased the de-commissioned facility in August of 2004 from Weyerhaeuser Canada. FFP re-commissioned the dimensional lumber facility

to meet government and community interests in maintaining local economic diversity and employment in November 2004, and started investing capital to transform the facility into the value added model set by C+C Wood Products Ltd.



Above – Overview picture of Foothills Forest Products facility and site.

Over the course of the first three years of operation, FFP has made significant capital investments in the facility to make it a leader in the value added wood products industry in Alberta. In addition to a sawmill facility, FFP has been constructing a new value added facility. This is consistent with the FFP's plan to produce value added products servicing a well established North American Market. In conjunction with the construction of the new paneling facility, two state-of-the-art wood pelletisers have been installed which have the capacity to manufacture approximately 18,000 tonnes of high quality wood pellets annually from a portion of the waste produced by the sawmill and planer. Currently FFP is working on ways to increase pellet production and potentially convert 100% of the waste fibre into wood pellets.

Historically, wildfire, disease and insect outbreaks have been the primary natural disturbance agents in the E8 FMU. This resulted in a landscape containing a variety of age-class groups and forest types. Wildfire suppression over the past century has changed this landscape, leaving an even-aged, old forest in E8. Lodgepole pine is the most common tree species in the area. Due to these two factors, there is a serious threat of a mountain pine beetle infestation. Over the past 40 years, forest companies have been harvesting in E8 which has helped to decrease but not eliminate the threat of an infestation.

1.2 Purpose and Scope of the FMP

The E8 Forest Management Plan provides guidance for the sustainable management of forest resources and other values in the E8 FMU. The plan was developed through a cooperative effort between the Foothills Forest Area (SRD), Foothills Forest Products Inc. and Forest Management Branch (SRD). Goals were developed by following the Provincial requirements for forest management at the time this plan was written. The five main goals of this Forest Management Plan are:

1. Determine spatially, operable and sustainable supplies of timber.
2. Reduce the susceptibility of pine forests to future mountain pine beetle infestations by following the “Healthy Pine Strategy”.
3. Manage habitat supplies for Woodland Caribou and Grizzly Bear.
4. Ensure that traditional use of the management unit can continue.
5. To create a forest management plan that balances values of the forest based on current information and public input.

During the developmental stages of this plan, many complex issues arose. These issues were identified as required and the scope and the goals of the plan changed over time. Different methodologies and strategies were developed and implemented during the stages of development to address these issues. The final plan has incorporated this information and all knowledge gained since the initiation of this plan.

The sections of this plan follow the requirements of the Alberta Forest Management Planning Standard and all relevant pieces of legislation, directives, policies, and plans. Together they provide the information and guidance needed to meet the five goals of the FMP.

A Timber Supply Analysis (TSA) was completed to determine the sustainable timber supply for the E8 FMU. The TSA followed the “*Planning Mountain Pine Beetle Response Operations Interpretative Bulletin*” and focused on protecting the integrity of high value caribou intactness areas. Different scenarios were evaluated and eventually, a Preferred Forest Management Strategy (PFMS) was finalized. The TSA is located in Section 8 of the FMP.

A landscape assessment is located in Section 2 of this document. It provides a “snapshot” in time of E8. Prior to developing the FMP, background area knowledge was required about the uses, values and forest conditions. This knowledge provided the current status of the resources as well as geographical, ecological and administrative boundaries and communities. This assessment was used in the development of the preferred forest management scenario and to establish forest management goals. It

provides a tool to measure and assess the success of the planned preferred forest management strategy in achieving these goals and objectives.

To ensure that the ecological, economic and social values were met, Values, Objectives, Indicators and Targets (VOITs) were developed and are located in Section 4. The E8 VOITs follow the criteria set out in Annex 4 of the *Alberta Forest Management Planning Standard* and Section 6 of CSA Z809-02. Quantitative targets were developed for each of the VOITs where feasible. During this period, the original goals changed due to circumstances such as the implementation of the Caribou Recovery Plan, the Mountain Pine Beetle Action Plan and the Grizzly Bear Recovery Plan. Since the initiation of this plan, many meetings and public consultation opportunities were held to develop the final set of VOITs.



A comprehensive Communications Strategy was developed to ensure that meaningful public consultation was completed for this FMP to ensure that public was satisfied with the goals and outcomes of this plan. The goal of this strategy was to provide meaningful public consultation opportunities in a way that allows the stakeholders to be involved proactively in sustainable forest management practices for the purpose of meeting expectations as per Section 5.0 of “Z809-02 Sustainable Forest Management: Requirements and Guidance” and the *Alberta Forest Management Planning Standard*. This strategy is located in Section 7 of the FMP.

Section 5 outlines Foothills Forest Products’ Monitoring Program. Operational strategies have been designed and implemented by the company to create an adaptive, management approach based on maintaining ecological diversity and sound forest management practices. The goals and strategies of this program have been incorporated into the VOITs and will be monitored and adapted as necessary.

1.3 Sustainable Forest Management and Guiding Documents

There are many documents which drove and guided the E8 Forest Management Plan. It was developed in accordance with the *Alberta Forest Management Planning Standard* approved by Ministerial Order in May 2006.

The Government of Alberta adopted the *CAN/CSA- Z809-02 Sustainable Forest Management: Requirements and Guidance Document* as the forest management planning system. All standards in this document apply to this plan except where specifically excluded in the Alberta standard. The Foothills Forest Products Operating Ground Rules were negotiated in April 2008 and finalized and approved in June 2008. These rules apply to this forest management plan.

This FMP provides landscape level direction for an area where multiple values must be considered. There are other plans in place and currently being developed that overlap this area and will be referenced and will guide operations in E8. These plans include:

- A Policy for Resource Management of the Eastern Slopes, Revised 1984
- The Caribou Recovery Plan
- Grizzly Bear Recovery Plan
- Integrated Industrial Access Management Plan (2008 SRD Information Letter)
- Highway 40 Demonstration Project
- Mountain Pine Beetle Action Plan
- West Central Caribou Landscape Plan and subsequent implementation plan (Currently under development and review)
- Grande Cache FireSmart Plan

Consistent with current FMP policy the plan remains in effect until it is updated or replaced, generally occurring in 10 year intervals. With the information currently available today, this document achieves a balance between the environmental, social and economic values in the E8 FMU.

1.4 Planning Team

This plan was developed and supported by Alberta Sustainable Resource Development Forestry Division in cooperation with Foothills Forest Products Ltd. The Planning Team was composed of the following individuals:

Amanda Hamelink	Alberta Sustainable Resource Development
Bill Tinge	Alberta Sustainable Resource Development
Karl Peck	Alberta Sustainable Resource Development
Jeff Kneteman	Alberta Sustainable Resource Development
Stephen Wills	Alberta Sustainable Resource Development
Erik Kok	Foothills Forest Products Inc.

The following individuals and companies contributed to the plan:

Rich McCleary	Foothills Research Institute
Chad Morrison	Alberta Sustainable Resource Development
Bev Wilson	Alberta Sustainable Resource Development
John Diiwu	Alberta Sustainable Resource Development
Brooks Horne	Alberta Sustainable Resource Development
Scott Neis	Alberta Sustainable Resource Development
Joan Simonton	Foothills Research Institute
Ryan Blackmore	Foothills Forest Products Inc.
Mark Cross	Foothills Forest Products Inc.

The Forestry Corp.

Watertight Solutions.



1.5 Stakeholder Identification

Stakeholders that have an interest in the E8 FMU were identified and were invited to provide input into the plan. The stakeholder group from the Grande Cache FireSmart Plan was used to aid in the identification of potential stakeholders. There are two groups of stakeholders which will be involved in providing input into this plan. These include Primary and Secondary Stakeholders.

Primary stakeholders are directly involved with the management of the Forest Management Unit E8 or will be asked to review or provide input into all or parts of the Management Plan and Spatial Harvest Sequence. These stakeholders include Sustainable Resource Development Staff, Foothills Forest Products Employees, and Precision Forest Industries Ltd. Employees.

Primary stakeholders include:

- Key SRD staff ;
 - Bill Tinge (SRD);
 - Karl Peck (SRD);
 - Amanda Hamelink (SRD);
 - Stephen Wills (SRD);
 - Jeff Kneteman (SRD);
- Foothills Forest Products Inc.;
- Precision Forest Products.

Secondary stakeholders are indirectly involved with the management of the resources in the Forest Management Unit E8 and will be provided with information for their awareness. These stakeholders include, but not limited to, surrounding FMA holders, Foothills Model Forest, the Highway 40 Project Team, local trappers, and local First Nations.

Secondary stakeholders include:

- Local First Nations;
- Town of Grande Cache;
- Precision Forest Industries Ltd.;
- Municipality of Greenview;
- Highway 40 Project Team;

- Local Trappers;
- Interest Groups (local/provincial Fish & Game Association, Alberta Conservation Association, Rocky Mountain Elk Foundation, Foothills Model Forest, ENGO's);
- SRD staff;
- Residents of other communities in the vicinity: Grande Cache, Victor Lake, Susa Creek, and Muskeg River;
- Residents of nearby communities (Grande Cache, Hinton).

1.6 Planning Stages and Milestones

The development of the E8 FMP began in the fall of 2004. Planning Team members met from February 2005 to the fall of 2007. The initial objective was to develop a Terms of Reference for a Preliminary Forest Management Plan based on the *Alberta Forest Management Planning Standard*. A set of key values, objectives, indicators and targets (VOITs) were developed and a Spatial Harvest Sequence was partially developed. External factors such as the Mountain Pine Beetle Action Plan, the Caribou and Grizzly Bear Recovery Plans and staff shortages directly affected the goals and development of this plan.

In order to gather input from the stakeholders and public, a communications strategy was developed and implemented. This strategy can be found in Section 7 of the FMP.

The goal of this strategy is to provide meaningful public consultation opportunities in a way that allows the stakeholders to be involved proactively in sustainable forest management practices for the purpose of meeting expectations as per Section 5.0 of “Z809-02 Sustainable Forest Management: Requirements and Guidance” and the *Alberta Forest Management Planning Standard*.

The three core messages that are to be delivered by this strategy are:

1. Alberta Sustainable Resource Development with Foothills Forest Products is developing a forest management plan for the forest area surrounding Grande Cache.
2. Sustainable Resource Development values the input of the public based on their local knowledge and interest in the area.
3. There will be a variety of opportunities for all stakeholders to provide this input.

The final plan will be submitted to Forest Management Branch for approval in September 2008. The goal for final approval is October 2008.

1.7 Forest Management Planning Process

The development of this plan was guided by the *Alberta Forest Management Planning Standard*, *CAN/CSA- Z809-02 Sustainable Forest Management: Requirements and Guidance Document*, the Mountain Pine Beetle Action Plan and all relevant Federal and Provincial legislation, Alberta Government policies, and Directives.

In August 2004 Foothills Forest Products Inc. purchased the mill and all liabilities from Weyerhaeuser Canada in Grande Cache, AB. The company was awarded a quota in E8 to accompany the purchase of the facility. At this time, a timber supply analysis was completed and an annual allowable cut was established. The process then began for the planning of a Preliminary Forest Management Plan (PFMP).

The Terms of Reference were completed for the PFMP on May 1, 2005 and approved on May 20, 2005. The original completion date was September 2005. At this time, the Mountain Pine Beetle was becoming more prevalent in Alberta resulting in a change in the direction for all Forest Management Planning in Alberta. Completion of the FMP was delayed since Provincial MPB work took priority. Forest inventory updates were also unavailable from Resource Information Management Branch, which further delayed the plan. This situation was rectified in July 2007 and the timber supply analysis was finalized in July 2008. Additionally, other issues such as MPB operational and planning priorities and planning staff shortages hampered the completion of this plan.

As directed by the Planning Standard, the Planning Team members from SRD and Foothills Forest Products Inc. developed a set of Values, Objectives, Indicators, and Targets. These were used in the development of spatial harvest sequence, the timber supply analysis, the FMP itself and the Communication Plan.

Letters notifying all stakeholders were sent out communicating to all stakeholders that the plan was in the developmental process. Open houses were held annually in conjunction with the Foothills Forest Products AOP Open House. Status updates and information concerning the spatial harvest sequence and VOITs were made available. Upon completion of the draft version, hard copies were made available to the public. The final draft will be made available to the public in the Hinton and Grande Cache offices where all interested parties and stakeholders have an opportunity to provide feedback.

In 2006, the Alberta Mountain Pine Beetle Action Plan was implemented. At this time, SRD and Foothills Forest Products Ltd. had already developed a preliminary Spatial Harvest Sequence and Net Landbase. The old SHS was considered obsolete and the MPB Action Plan was used to create a new SHS. Additionally, updated landbase information was acquired so the net landbase was redone. The net landbase was redone to ensure that all information and updates were captured for this final plan.

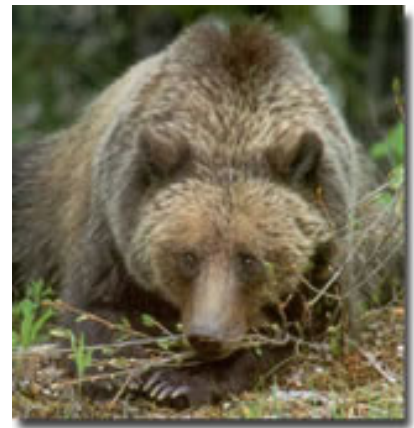
Objectives of the Alberta Woodland Caribou Recovery Plan are intended to be met by the West Central Caribou Landscape Plan.

In 2007, the Caribou Land Management Association (CLMA) developed an “Intactness Area Strategy” for Woodland Caribou in the Eastern Slopes Region. This intactness area

strategy was included as part of the West Central Caribou Plan submitted to the Alberta Caribou Committee and currently under review by SRD. The current management approach is that the new intactness area strategy will replace the old general caribou deferral zone. This policy direction will be confirmed upon final approval of the WCCLP.

The CLMA (newly reformed under the FLMF- Forest Land Management Forum) provided recommendations, including application of the intactness area and objectives, for assessment by the West-Central Caribou Landscape Planning Team (WCCLPT). Modeling results from the WCCLPT indicated that the concept of “intactness areas” was sound in principle. In anticipation of the general acceptability of the intactness strategy in the West Central Plan, SRD in consultation with Foothills Forest Products included a 20 year deferral in primary intactness areas (considered intactness rankings 14-16). This deferral (10 years longer than the recommendations in the WCCLP) was incorporated into landbase considerations in the Timber Supply Analysis contained in this DFMP. Currently the primary intactness area (14, 15, 16) makes up approximately 30% of the entire FMU making it the largest deferral area proportionally in the region. The effectiveness of this strategy will be assessed and modified as deemed appropriate under the “adaptive management strategy” envisioned in the West Central Caribou plan.

In 2008, the Grizzly Bear Recovery Plan was released and is being implemented as this is plan is being written. Once the plan is approved and implemented FFP will work together with SRD to ensure that Grizzly Bear objectives are considered when making planning decisions.



1.8 Integration with the Caribou Recovery Planning in E8

During Weyerhaeuser operations in E8 there was an informal agreement to limit timber harvest in the key Caribou zone in the south central portions of E8. The area was considered important habitat for the A La Peche and Little Smokey Caribou herds. This was an ad hoc approach focused primarily on maintenance of some of the prime habitat types, particularly timber stands in the older age classes. As a result of focusing harvest in the northerly portions of the unit, some key intact areas of critical habitat were formed. This later became a key component of a Caribou Recovery Plan.

In 2004, with the sale of the Grande Cache mill to Foothills Forest Products and prior to transfer of the quota certificate to Foothills, SRD completed a review of the AAC in E8 in the context of Caribou habitat issues. Collaboration between the Fish and Wildlife Division and the Timber Management Division facilitated by the Forest Business Division resulted in a reduced AAC. This provided opportunity for maintaining a significant portion of key Caribou habitat areas on the landscape of E8. The cut was reduced to less than 210,000 m³ from a cut which exceeded 400,000 m³ with the ability to harvest 200 ha annually in the Caribou zone. This cut was considered appropriate to restart sawmill operations focussed on value added production. The reduced cut allowed for the harvest deferral of a large portion of E8 to satisfy caribou habitat objectives while the various caribou groups conducted research and due process to learn more about the specific needs of caribou and how to integrate conservation objectives with a sustainable sawmill business.

In 2004 the adjusted quota certificate was issued and Foothills commenced operations. During harvest planning SRD directed FFP to continue to remain completely out of the Caribou zone for a period of 5 years. The temporary goal for harvesting in E8 was to focus on removing the fragmented reserve patches in the northern portion of E8 while leaving the relatively untouched southern portions intact. While this approach was approved by SRD as a trade off for continued Caribou habitat protection, it has other implications for the unit. The approach fosters the creation of large patches of early seral stage habitat for primary prey species.

The A La Peche and Little Smokey Caribou herds are considered a species at risk. With the advent of the federal government's *Species at Risk Act* (SARA), SRD needed to prepare a Caribou Recovery Plan. In 2004 the forestry and oil and gas industries and the Government of Alberta expressed interest in developing a collaborative approach to managing for improved Caribou populations. In response, the Foothills Model Forest worked with the groups to form the Caribou Landscape Management Association (CLMA). This association would operate in the west central area focused on the A La Peche and Little Smokey herds. In early 2005 the CLMA was formalized through a Memorandum of Agreement among 10 forestry and oil and gas companies and the Aseniwuche Winewak Nation of Canada (AWN). Administration for the association was under the umbrella of the Foothills Research Institute. In May 2005 a contract Director was engaged for the CLMA. Foothills Forest Products operates in the core herd areas and was identified as a key stakeholder for the group. Foothills became a full paying member of the CLMA and remains engaged with the association.

The CLMA was formed to ensure collaboration among all industrial users on the landscape in an integrated fashion with the objective of finding opportunities for reduction of the collective footprint in the Caribou area. This work would be undertaken independently and in collaboration with Government and its Caribou recovery planning initiatives. Four key purposes were identified and formed the basis for all ongoing work within the Association. These were:

- Co-operating to reduce the future industrial footprint;
- Reclaiming the industrial footprint, both past and current, to restore Caribou habitat;
- Supporting applied research to increase knowledge about Caribou and their habitat;
- Partnering and supporting the Alberta government initiative to develop a Caribou recovery plan.

The CLMA has played a key role in the current West Central Caribou Recovery Planning exercise which is nearing completion of its final report to Alberta Caribou Committee. (early May 2008) The CLMA has completed and submitted an Industrial Integrated Access Management Plan to co-ordinate planning for key primary road development in the Caribou areas. The objective is to have all industrial operators utilize the same road corridors for primary access to avoid duplication of road development. Approval is pending on this document.

The CLMA was also instrumental in developing a land base review of Caribou habitat from an intactness perspective. The intactness rating approach delineates critical intact forest patches. These intact areas provide optimum habitat use by Caribou and have become a key component of the West Central Caribou Recovery Plan. Intactness has been adopted by SRD and Foothills Forest Products in development of the new Timber Supply Analysis (TSA) for E8. The TSA forms the underpinning of the Forest Management Plan scheduled for approval in September 2008.

Under a revised Memorandum of Agreement April 1/08, the CLMA will reform as the Foothills Landscape Management Forum (FLMF). The MOA is currently out for partners to sign and renew their commitment. The FLMF will operate with the Foothills Research Institute (formerly Foothills Model Forest) as the Coordinating Agency. The purpose for the change is to focus on broader coordination under a process of “adaptive management” and “integrated landscape management (ILM). The broader range of activities will allow for implementation of the West Central Caribou recovery plan under an adaptive management approach. It will also position FLMF to respond to other initiatives under ILM and the new proposed Land Use Framework.

Foothills Forest Products plans to remain as an active member of the new Forum. Foothills worked with SRD in formalizing the core intactness areas into the TSA for E8. The new intactness rating system for Caribou habitat allows for more precise harvest

planning on the landscape. The use of the intactness approach formalizes the important Caribou habitat types and replaces the old broad “Caribou Zone” approach. In the new FMP for E8 Foothills in collaboration with SRD will not schedule any timber harvest in the “core” intactness areas in E8 for a period of 20 years. (Core intactness areas are those areas identified as having an intactness rating of 14, 15 and 16 developed by CLMA for the Caribou Recovery Plan). After 10 years FFP could access the areas to harvest SSI >50 stands for MPB purposes if necessary. While the intactness approach has not been formally approved under the Caribou recovery planning process, both SRD and Foothills have agreed to work with this approach for the FMP. This represents a very proactive approach to moving on important Caribou issues, ahead of the formal recovery plan. This approach supports implementation of important parameters under the new FMP. These measures generally exceed proposals under the current draft recovery plan.

1.9 Preferred Forest Management Scenario

The process used to generate the chosen preferred forest management scenario (PFMS) was developed over a period of time in which a comprehensive set of values was established and the final iteration of the net landbase was completed. The PFMS criteria that were selected achieved an acceptable balance of environmental, economic, and social values. These values are outlined in detail in Section 4 of the forest management plan.

A timber supply analysis was completed to develop realistic forest management strategy that could be operationalized and supported a sustainable and healthy forest. Many investigative runs were completed before the final PFMS was chosen. The purpose of these runs is to evaluate the impacts of specific strategies and to decide if certain constraints required further evaluation and refinement. A more detailed description of these runs can be found in Section 5 of the TSA.

The accepted version of the TSA follows the “Healthy Pine Strategy”. The goal of this strategy is to reduce the operable Rank 1 and 2 stands by 75% over a 20 year period in a given area. The final non-spatial scenario achieved a 55% reduction after 20 years where as the final spatial harvest sequence (SHS) provides a 48% reduction after 20 years.

The TSA uses the “Intactness Areas” developed by the CLMA to maintain high quality Woodland Caribou habitat. There will be no access to high value caribou intactness areas for the first 20 years. Stands which have a high SSI CF rating (greater than 50), may be accessed from years 11-20. Stands that have been assigned a SSI_CF value greater than or equal to 50 can be accessed after year 10 for mountain pine beetle management purposes.

Additional management inputs include:

1. Utilization: both C and D stands use a 13/7 utilization level and a 15 cm stump;
2. Minimum harvest ages: Refer to Section 6.1.2 of the TSA;
3. Cull: Conifer cull = 3% and Deciduous cull = 9%;
4. Lifespan: 325 years for all yield strata;
5. Regeneration lag: 2 years for harvested areas and 0 years for natural mortality;
6. Access: Sets of stands in the Muskeg and Huckleberry compartments were locked out due to access constraints;
7. Predefined harvest areas: Pre-planned areas were locked the SHS;
8. Flow periods: Two even flow periods were created over a 200 year planning horizon. Period 1- Years 1-20 & Period 2- Years 21-200;

9. Flow fluctuation: a flow fluctuation of + or - 5% was allowed for conifer and 2% for deciduous;
10. Fall down: Since the LRSYA is overachieved, the coniferous landbase cannot fall below 90% of the current 13/7 AAC;
11. Growing Stock: non-declining for the last 50 years;
12. Minimum piece size: 6.0 trees per m³ from year 1 to 10 and 5.5 trees per m³ from year 11 to 200;
13. Deviation from optimal sequence: deviations from the optimal aspatial sequence by up to 3 five year periods were allowed;
14. Green-up constraint: No constraint was used;
15. In block loss for roads and landings: 5% was not removed;
16. Harvest Area Size (coniferous): Min = 5ha, Target= 150 ha, Max= n/a;
17. Harvest Area Size (deciduous): Minimum = 2ha, Target= n/a, Max= n/a.

The net spatial coniferous annual allowable cut for the flow period of 1-20 is 450,951 m³ and deciduous is 7,950. The net spatial coniferous AAC for the flow period of 21-200 is 193, 871 and deciduous remains unchanged. The 4% stand retention has not been modeled into the TSA and this volume must be left standing on the landscape. The volume delivered to the mill will be 4% less than the volume shown in the table below.

Table 1: E8 Annual Allowable Cut Levels (adapted from the E8 TSA)

E8 PFMS AACs		
	AAC Flow Period	
	Year 1 to 20	Year 21 to 70
AAC Component	Harvest Volume (m ³)	Harvest Volume (m ³)
Primary Conifer	450,951	193,871
Secondary Conifer	1,765	
Total Conifer	452,716	
Primary Deciduous	7,948	7,948
Secondary Deciduous	5,673	
Total Deciduous	13,621	

A spatial harvest sequence was generated for 70 years and the final 20 year SHS map is attached at the end of this section.

1.10 Forest Management Planning History

Prior to 1979 the E8 unit experienced very little timber harvest or concentrated development. While there were timber allocations in the unit, most were small and often did not operate to capacity due to the remoteness and limited access.

The first Alberta FMA was issued in 1954 to North West Pulp and Power (NWPP) in Hinton. From 1954 until 1968, the E8 unit was part of a provisional timber reserve for NWPP (subsequently Weldwood and currently held by West Fraser Timber). This reserve status could be activated by NWPP at any time. This provision restricted any timber harvest in the unit to strict diameter limits. In 1972 this provisional reserve was cancelled and the unit and volume reverted back to the crown.

In 1958 and 1959 several timber licences were issued to Clearwater Timber Products in the E8 unit. However, very little harvesting occurred on these licences and they were cancelled in 1969.

In the early 1970s there were 2 very small quotas issued in the E8 unit. One was Hett and Sibbald and one was the McIntyre Porcupine coal mine. The Hett and Sibbald quota was later exchanged for a quota in unit E12. The McIntyre Porcupine quota was transferred to Smokey River Coal in 1982 and remains as a quota today under Precision Lumber. There were also two MTU's established in the 70's which were later cancelled in favour of a volume from an FMA issued in 1980.

In the late 1970s the government initiated an effort to expand economic opportunity in the forest industry sector based on unallocated forest resources. This initiative was to help diversify the economy and stabilize rural communities. Grande Cache was



identified as a key location due to the cyclical nature of the coal mining industry and the resulting lack of economic stability. A new government division (Forest Industry Development) was formed to promote forest industry development. Several unallocated timber blocks were identified. These resource units were packaged and advertised nationally and internationally to attract new development. One of these development opportunities was the Berland Timber

Development Area (which included E8). This opportunity envisioned a two mill approach to utilization of the timber resources. One was a sawmill in Grande Cache and the other a pulp mill in Knight, just west of Whitecourt. The idea was to utilize the wood profile with larger timber flowing to the sawmill and the smaller wood going to the pulp mill. In 1979 the successful sawmill candidate, British Columbia Forest Products Limited (BCFP), was awarded the Berland block of timber in return for construction of a sawmill in Grande Cache. The pulp mill was never built and subsequently, remaining

timber resources were awarded to Alberta Newsprint for their mill proposal in Whitecourt.

BCFP commenced harvesting in May of 1980 under commercial timber permits and in July 1980 was issued a new FMA for E8B. In 1984 the FMA was cancelled and the timber reissued to BCFP under a quota certificate for 480,000 m³ by OC 841/84. The quota certificate was renewed in the 1986 quota renewal period. On September 11, 1987 BCFP assigned the quota to Grande Cache Forest Products (a company separate and distinct from BCFP). In 1989 work was initiated but not completed to assign the quota to Grande Cache Forest Industries (owned by Proctor and Gamble and Fletcher Challenge). Proctor and Gamble was the company which owned and operated the Grande Prairie Pulp Mill at the time and held the FMA immediately northwest of E8. Three years later in 1992 the E8 quota was rolled into Proctor and Gambles' FMA. This later transferred to Weyerhaeuser Canada when the Grande Prairie assets were sold to them.

During the 12 year history of sawmill operations by BCFP and later GCFP, the Grande Cache operation was maintained under difficult circumstances. This was due to less than optimal mill location, small wood profile, and transportation issues, which disadvantaged the competitiveness of a commodity lumber producer. The transfer of assets and operation to P&G, and ultimately Weyerhaeuser, was seen as an opportunity to integrate the sawmill with a pulp producer. Integration would enable better utilization of wood profile from E8 and facilitate wood swaps. This could potentially create improved sawmill efficiencies as envisioned by the original concept for the Berland Timber Development area. In spite of paying less than the regulation rate for timber dues (negotiated as a FMA rate) and the benefits of an integrated operation, the economics of the Grande Cache mill continued to be problematic. These issues coupled with long term timber supply and access outlook culminated in Weyerhaeuser announcing a mill closure in early 2004.



The closure of the Grande Cache sawmill was a major blow to the Grande Cache economy as it followed a suspension of operations at the local coal mine. The provincial government was very concerned with these events as it left residents of Grande Cache with a bleak outlook. The government mobilized a cross department initiative to develop strategies aimed at reducing the impact of the situation. A key priority for the government and especially SRD was to find a new operator for the mill if at all possible. Weyerhaeuser recognized the impact of their decision and acted in a very responsible fashion by attempting to locate a potential buyer for the facility and enabling a tenure transfer. The focus was on finding a value added producer which would turn mill production to alternative markets and away from traditional commodity lumber production. Moving towards a value added proposition fit the government's strategic objective of increasing value added product development. This strategic objective was outlined in the

government's Strategic Policy Framework document entitled "Securing Tomorrow's Prosperity".

In the spring of 2004, Weyerhaeuser located an interested company from Quesnel, BC, called C & C Wood Products . Weyerhaeuser advised SRD of the interest and began the process of completing a sale. C & C Wood Products was an independent value added products producer with well developed North American markets. The new operator was considered an excellent fit for the E8 situation. They could operate with a slightly reduced AAC (reduced at the time to accommodate a Caribou management need), a small wood profile, and had a value added vision for the mill. These circumstances provided for continued employment of mill staff and a modest expansion as new facilities were brought on stream.

In August 2004 the purchase of the Grande Cache sawmill from Weyerhaeuser was completed by C & C Wood Products under the leadership of its owner. The two companies worked with SRD to secure the transfer of the timber tenure to C & C under the new Alberta company named Foothills Forest Products. The E8 management unit was pulled out of Weyerhaeuser's FMA and converted to a quota for Weyerhaeuser. This enabled the transfer of the quota to Foothills Forest Products, which was completed in fall of 2004. Foothills Forest Products commenced production at the Grande Cache mill in fall of 2004 initially as a commodity lumber mill to develop a cash flow for further development. Over the next 3 years (to spring 2008), Foothills worked diligently and invested in developing the value added opportunities envisioned in the initial agreement with the government. Currently, Foothills operates a wood pellet plant to utilize waste wood sources, continues to supply wood chips to the Weyerhaeuser pulp mill in Grande Prairie, and has built a value added finished wood paneling plant at the mill site. An investment of approximately \$10 million has been made to complete value added commitments made to the government in return for a quota timber supply and future commitment for conversion to an FMA.

Foothills Forest Products in Grande Cache was established through co-operation with the community, government and local workforce and has resulted in a premier value added wood products company for Alberta. The future development of a value added facility meets all expectations of the value added strategy for the province of Alberta. This facility, when fully operational, will be the most dramatic example of a green field value added plant in the province in over a decade.

1.11 Natural and Anthropogenic Disturbance in E8

Wildfire, insect outbreaks, and disease represent the primary natural disturbance agents within the mountains and eastern slopes prior to the settlement of these areas. Since the introduction of human influence in the E8 FMU, wildfire activity has decreased and large fires have been absent from the landscape for many decades. The frequency of fires in the past few decades has been low. However, with an increasing human presence and a consistent level of lightning caused fires, the number of wildfires may increase. Due to the Province's ability to fight fires, the sizes of these fires will very likely be limited to small insignificant disturbances.

Mountain Pine Beetle is a native insect pest in the temperate, lodgepole pine forests in North America. The E8 FMU is considered to be outside of the natural range. There have been no historic outbreaks in the north eastern slopes of the Rocky Mountains. However, since the exclusion of fire from the landscape, vast tracks of mature pine forests have developed over time. Additionally, the climate of this area has been slowly warming which has supported survivability of overwintering beetles and larvae. This has created suitable habitat and weather conditions that allow Mountain Pine Beetle populations to steadily increase. One of the goals of this plan is to reduce the amount of susceptible pine in E8, subsequently reducing the likelihood of spread to the rest of the Province and Country.



Human disturbance has been occurring in this area for centuries. The aboriginal people of the area are known as Aseniwuche Winewak which is Cree for “Rocky Mountain People”. These individuals descended mainly from Cree who moved west with the fur trade. Their traditional territory spanned from Jasper north to Grande Prairie and from McBride east to Lac St. Anne. In 1907, Jasper National Park was created and many of Aseniwuche Winewak moved to the Grande Cache area where they had family already. In 1969, the town of Grande Cache was built and the aboriginal people were affected in numerous ways. The Aseniwuche Winewak Nation (AWN) was formed to help minimize these impacts and there are currently seven co-ops within the AWN today. The AWN has no recognized Constitutional status, but is linked to First Nations across Canada.

The first commercial timber operators began working in 1959. However it wasn't until 1980 when British Columbia Forest Products Limited secured timber rights in the area that any harvesting of significance began. As mentioned, the town of Grande Cache was built in 1969. The town was built to sustain the new coal mine. Since this time, human activity in E8 has been steadily increasing. Timber harvesting, oil and gas exploration and development, mining, sand and gravel operations, trapping and recreation are the most common activities occurring in this FMU.

There is an extensive access network which is a result of the intense industrial pressure in this area. Almost the entire FMU can be accessed by truck or all terrain vehicles. Currently, as part of the Grizzly Bear Recovery Program, all roads and linear disturbance that could be travelled on by a 4 x 4 truck are being verified and mapped. This information will enable the Alberta Government and industry to better manage this access and mitigate future negative impacts of new access.

Recreation is prevalent in this area as well. Outdoor enthusiasts use this area for hiking, snowmobiling, quadding, random camping, hunting, fishing, biking, skiing, climbing, and horse back riding, etc.



Commercial recreation is also present in the area with many companies based out of Grande Cache. The Passport to the Peaks Program and the Great Canadian Death Race encourages the use of hiking trails in the area. As well, there are OHV groups that use this area for gatherings. This FMU also acts as an entrance point into the Willmore Wilderness Park. There are many campgrounds, recreation areas, hiking trails and random camping areas in

the FMU which are identified in the landscape assessment.

