



Spray Lake Sawmills

Detailed Forest Management Plan 2001 – 2026

Chapter 10 – Implementation and Monitoring



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Chapter 10 - Implementation, Monitoring and Reporting

10.1 Implementation

Implementation of the preferred forest management strategy will generally follow the planning process identified in Section 6.0 of the Interim Forest Management Planning Manual (1998) and the Alberta Timber Harvest Planning and Operating Ground Rules (1994) until such time as the FMA specific ground rules are developed. Chapter 5 of the DFMP provides guidance to the development of the ground rules. Some areas that may differ from existing ground rules include:

- Structural retention guidelines.
- Riparian management guidelines.
- Annual meeting between SLS and SRD/ACD.
- Allowance for ground rule changes as part of adaptive management.
- Operational process to deal with tree species of concern.
- Process for planning around sensitive sites.
- Operational control strategies and tactics for Mountain Pine Beetle and Dwarf Mistletoe.
- SLS recommended reclamation standards for other commercial users.
- Special silviculture and harvesting practices for meeting Fire Smart objectives.
- Government and stakeholder referral processes.

Included in the DFMP as part of the Preferred Forest Management Strategy is a spatial harvest sequence for a 25 year period (2001-2026). This sequence will guide the General Development Plan (GDP). The GDP is a rolling five year plan prepared annually that highlights resource issues, stakeholder interests, compartment level harvest sequencing and road corridor plans.

SLS will assess the spatial harvest sequence generated by the Timber Supply model (Chapter 8) for operation delivery. A harvest design will be developed for the Annual Operating Plan that addresses site-specific issues and values. This harvest design will be compared against the DFMP spatial harvest sequence. The boundaries of the areas planned for harvest will be compared to the DFMP polygons and differences documented. Should the compartment harvest block design differ from the DFMP polygons by more than 20%, the level of variance and the rationale will be reported in the five year Stewardship Report.

As part of the DFMP, SLS developed a long-term road strategy (Chapter 3). This strategy, in conjunction with the DFMP spatial harvest sequence will be evaluated as a base for road corridor identification in the GDP. The strategy will also form the basis of discussions with other commercial interests, primarily the energy sector.

SLS will continue to monitor various planning initiatives by the Alberta government identified in Chapter 5 that may also affect the implementation of the DFMP. These include:

- Ghost Waiporous Access Management Plan
- Grizzly Bear Recovery Plan
- Community/Facility Fire-Smart Plans

- Southern Alberta Sustainability Strategy

Prior to development of the next DFMP, SLS will assess new data needs and areas where existing data needs to be improved in part based on new research and in part based on the implementation and monitoring results associated with this DFMP. This ongoing assessment will guide data collection initiatives over the next 10 year period in preparation for the development of the second DFMP due in 2016.

10.2 Monitoring

Adaptive management is a formal process of issue assessment, planning, implementation, monitoring, evaluation, and feedback. This management approach will require the regular monitoring of measurable ecological and operational benchmarks related to the objective statements developed for the DFMP and related to the modeled results of the Preferred Forest Management Strategy. SLS is committed to monitoring its impact on the vegetation mosaic as defined in the FMA (Paragraph 7, Appendix C) and against the modeled projections.

SLS will follow the direction provided by Forest Management Branch Directive 2006-04 – Timber and Reforestation Operations Monitoring.

To assist in review, monitoring activities are itemized against the issue/value as listed in Chapter 5.

Issue/Value	Monitoring	Annual	Five years (or as otherwise stated)
Access	<ul style="list-style-type: none"> • List and map of access controls. (AOP maps and LOCs) • Km of road (class iv temporary and higher) constructed by SLS. (AOP maps and GPS records) • Km of road (class iv temporary and higher) reclaimed by SLS. (GPS records and Road Maintenance and Abandonment Plan) • Road density assessment – compare to baseline 2004. (GIS exercise using methodology in Ch. 2) • Highlight results of SLS road inspection program. 	<ul style="list-style-type: none"> √ √ √ 	<ul style="list-style-type: none"> √ √ √ √ √
Adaptive management and research	<ul style="list-style-type: none"> • Document new information to be addressed in next DFMP (2016). • Document DFMP and ground rule changes. • Document research projects SLS involved in. 		<ul style="list-style-type: none"> 10 year √ √
Aesthetics	<ul style="list-style-type: none"> • Post harvest field assessments where mitigation specified to validate field delivery against plan. 		<ul style="list-style-type: none"> √
Vegetation biodiversity	<ul style="list-style-type: none"> • Seral/cover group assessment against baseline (2001) and modeled projections. (GIS exercise based on 		<ul style="list-style-type: none"> 10 year

Issue/Value	Monitoring	Annual	Five years (or as otherwise stated)
	harvest updates) <ul style="list-style-type: none"> • Update ANHIC data for FMA. • Merchantable volume and area of block level structural retention. (Methodology in Ch 5.4.1.1) • Document AVI update activities from annual program results. 	√	√ √
Wildlife biodiversity	<ul style="list-style-type: none"> • Listing of sensitive wildlife sites – SRD and SLS identified. (Final Harvest Plans/AOPs) • Wildlife habitat suitability assessment against baseline (2001) and modeled projections. (GIS exercise following Ch 2 methodology) • Fragmentation assessment against baseline (2001) and modeled projections. (Follow Ch 2 methodology) 	√	√ 10 year 10 year
Community Timber Use Program	<ul style="list-style-type: none"> • Volume and area of CTU timber harvested. (Based on annual reporting by SRD) 	√	√
Soil conservation	<ul style="list-style-type: none"> • Interior block road/landing percentages. (Final Harvest Plans/AOPs) 	√	√
Forest health (pest management)	<ul style="list-style-type: none"> • Document Dwarf Mistletoe management activities. • Document MPB management activities. • Document significant insect and disease infestations • Document invasive plant control activities. 		√ √ √ √
Forest land base	<ul style="list-style-type: none"> • Document afforestation opportunity assessment and activities. • Summary of land use dispositions. (GIS based updates from notification /consent process and SRD records) • Summary of disposition issuance and cancellations. (GIS based updates from notification /consent process and SRD records) • Summary of other (government) land base deletions or additions. (GIS based updates from notification /consent process and SRD records) 		√ √ √ √
Forest protection (fire)	<ul style="list-style-type: none"> • Document fire smart initiatives on the FMA. • Document burned area summaries and salvage and reforestation activities. (SRD fire boundary information, Salvage AOPs, Silviculture schedule) 	√	√ √

Issue/Value	Monitoring	Annual	Five years (or as otherwise stated)
	<ul style="list-style-type: none"> Document holding and protection offset projects. 	√	√
Historical resources and unique areas	<ul style="list-style-type: none"> Listing of historical resource finds. (Annual archaeological assessments) Listing of historical resource protection activities. Listing of unique area (rare ecosite) finds. (Final Harvest Plans and public input) Listing of unique area (rare ecosite) protection activities. 	√	√
Integration	<ul style="list-style-type: none"> Document integration activities with government, commercial and non-commercial interests. Document developing trends 		√
Public involvement and safety	<ul style="list-style-type: none"> Document public and stakeholder communication processes used. Incident summary from incident reports. 		√
Reforestation	<ul style="list-style-type: none"> Update Silvicultural Strategy Summary in terms of post harvest treatments by strata. (Silviculture schedule and ARIS reporting) Regeneration survey results. (Summary of block surveys) Assess regeneration lag. (SRD methodology – September 20, 2004) Regeneration performance on interior block roads and landing.¹ Regeneration damage summaries including grazing damage. (Grazing Timber Agreement inspections, regeneration surveys) 	√	√
Sustainable timber supply	<ul style="list-style-type: none"> Harvested volumes and areas by strata and compartment. (Summary of delivered volumes and GPS block areas) Assess variance between volume harvested and volume projections from the TSA. (Spreadsheet exercise) Assess the variance between compartment harvest design and the 	√	√

¹ Regeneration performance monitoring will include quantifying the area disturbed by interior block roads and landings for 2003 and 2004, establishing a program to monitor performance, report actual performance in the stewardship report 2011 and provide SRD with detailed silviculture strategies for reclamation. At this point it is believed that normal silvicultural practices are successful. The Alberta Forest Products Association is currently reviewing the document "Roads and Processing Areas Monitoring Protocol" prepared by SRD. SLS will follow the outcome of this review/discussion process and including the monitoring protocol in its ground rules. Pending the outcome of the Provincial level discussions, SLS has developed a five step program.

Issue/Value	Monitoring	Annual	Five years (or as otherwise stated)
	DFMP spatial harvest sequence. (GIS exercise) <ul style="list-style-type: none"> • Growth and yield program plot establishment and measurement. (Activity summary) • Document Inventory update activities.(e.g. AVI, Land Use Activity, Harvest Activity) • Monitor against the factors contributing to the 7.5% AAC deduction in the TSA. (GIS exercise to quantify landbase removals. Structural retention measured as per Ch 5.4.1.1) • Assess cull level for the next DFMP (2016) by assesses scaling records. 	√ √ √	√ √ end of period 2 (2011) 10 year
Water quality/quantity and fisheries resource	<ul style="list-style-type: none"> • Document water quality monitoring for indicators in selected areas. • Re-assessment of ECA values base on refined data inputs. (Methodology in Ch2/Ch8) • Document riparian management activities. 		√ 10 years √

10.3 Stewardship Reporting

The previous section outlines the monitoring activities to be undertaken by SLS during the time period covered by this DFMP. The information highlighted for monitoring in five year periods will form the basis of the Stewardship Report. The report will also document areas of concern beyond the control of SLS as indicated in Section 7.0 of the Interim Forest Management Planning Manual. SLS will work with SRD and other government departments “in monitoring and reporting on external factors affecting DFMP performance.”

In order to align the Stewardship Report with the five year cut control periods outlined in the Forest Management Agreement and the DFMP spatial harvest sequence, the first Stewardship Report will actually cover the period from DFMP approval to 2011. From thereafter, each report will cover a five year period.

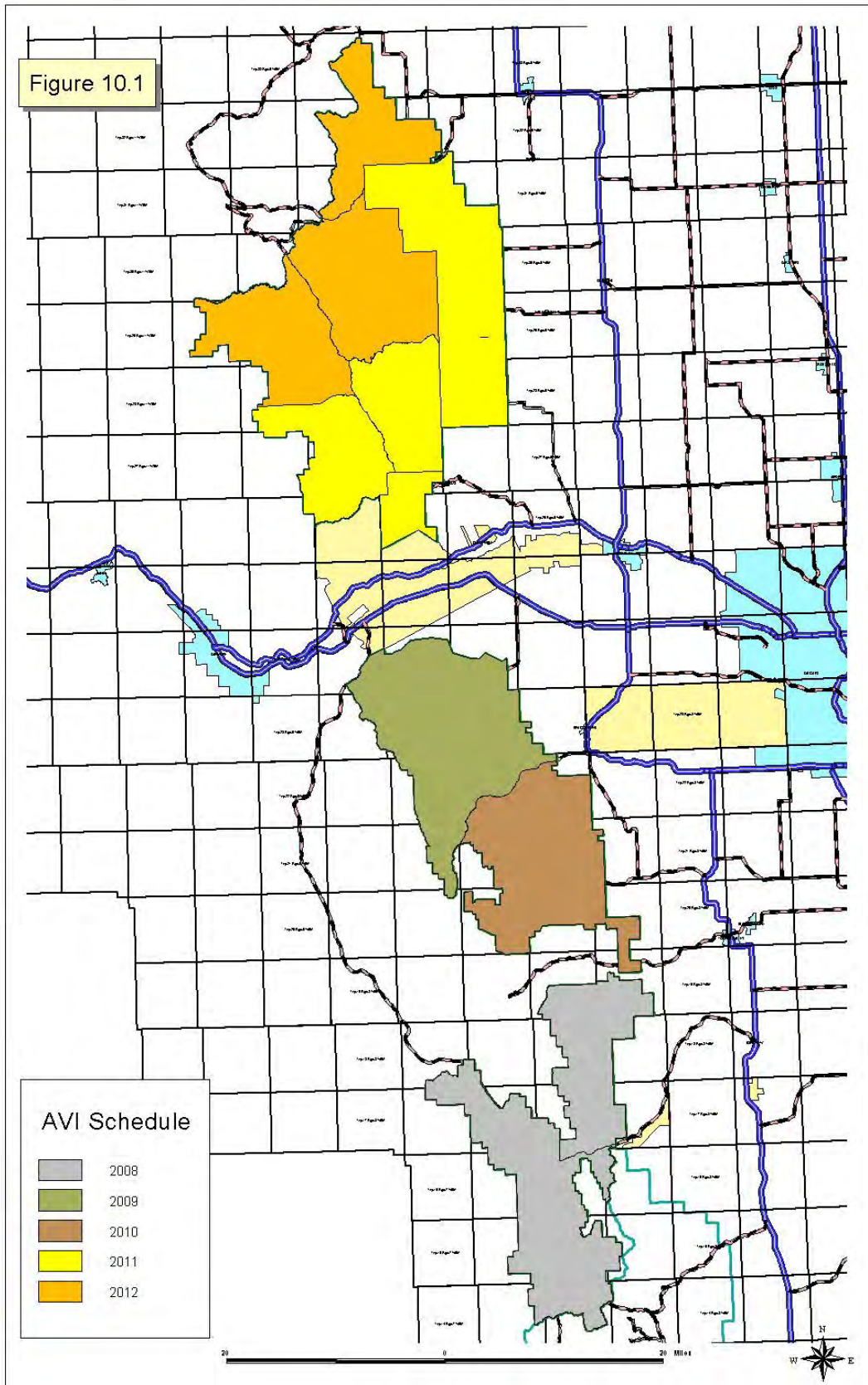
10.4 AVI Update Program

SLS is committed to completing a re-inventory of the forest (AVI to the standard current at the time of the update) for the FMA and B9 Quota area for use in the next DFMP scheduled for submission in 2016. The inventory process is currently outlined in the document Alberta Vegetation Inventory Standards Manual – Draft Version 2.1.1, March, 2005. The process includes data collection, air photo interpretation, orthophoto base mapping and digital attribute database creation. SLS will continue monitoring advances in technology for forest inventory applications. New technology and options will be discussed with SRD and adopted if approved for use.

In order to meet the 2016 DFMP submission deadline, SLS proposes to complete the AVI update by focusing on 20% of the FMA/year over a five year period. The following schedule is proposed:

Year	20%	40%	60%	80%	100%
2008	██████████				
2009		██████████			
2010			██████████		
2011				██████████	
2012					██████████

Figure 10.1 illustrates the tentative scheduling on a Compartment basis. SLS will submit an annual AVI Re-Inventory Plan by March 1st of each year commencing in March 2008 formalizing the landbase and inventory steps to be completed in the year.



10.5 Regeneration Performance Monitoring – Interior Block Roads and Landings

Currently there are questions being asked in Alberta about the productivity of reclaimed, interior block roads and landings. SLS believes there are no land base losses associated with reclaimed areas and is committed to monitoring regeneration performance on interior block roads and landings.

SLS proposes five steps to the monitoring program.

Step 1

SLS currently tracks all in-block disturbance (road and processing areas) percentages on a block-by-block basis as part of its harvest planning process to ensure compliance with the Soil Conservation Guidelines. This information will be used to quantify the area disturbed for 2003 and 2004 as requested by the SRD Planning Review Team. As part of the program, SLS will continue to quantify the area on an annual basis using GPS/GIS technology.

Step 2

SLS is committed to prompt reclamation of in-block roads no longer required for harvest and silviculture activities. The intent of reclamation is to return the road to a condition as close as possible to its initial state and level of productivity. Strategies of road reclamation include:

- Re-contouring of cuts and restoring natural hill slope drainage.
- Fracturing the soil to break up compaction.
- Restoring organic matter.
- Applying reforestation treatments concurrent with block reforestation.

Step 3

SLS will continue to perform the regulated Establishment and Performance surveys to assess regeneration performance on harvested areas. As stated in the Alberta Regeneration Survey Manual, *“Plots falling on temporarily flooded areas, brush piles, landing, in-block roads (without a disposition) will not be moved or deleted.”* Regeneration survey plots that fall on in-block roads and landings will be specifically identified during the survey and stocking and height information separated for comparison purposes. This is to validate the reforestation of the disturbed areas.

Step 4

SLS will work with SRD to establish paired-plot trials, randomly selected throughout harvest blocks to assess regeneration performance on roads and landings. The target is 25% of the blocks harvested in the 2005/06 and 2006/07 harvest seasons. The plot size is based on the regeneration and sapling plot portions of SLS PSPs. The plot shape may be adjusted to fit the disturbed area so the same square-meters are captured by the plot.

Step 5

Actual regeneration performance on in-block roads and landings will be documented in the five year Stewardship Reports, the first of which will be completed in 2011.