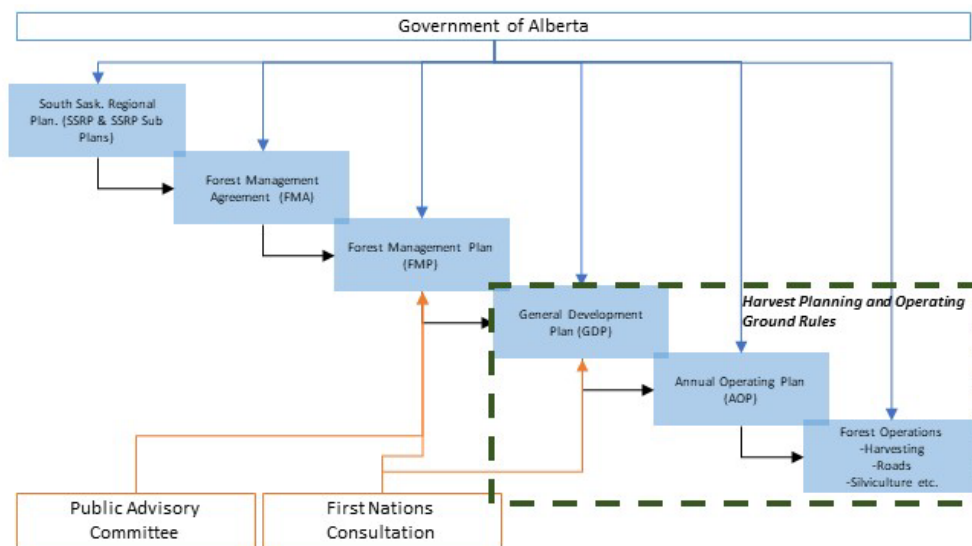


## Forest Management Plan for the C5 Forest Management Unit – Milestone Information Package Number 1

Crowsnest Forest Products (CFP), a subsidiary of Spray Lake Sawmills, is in the process of renewing the C5 Forest Management Unit 2006-2025 Forest Management Plan (FMP). The new 2026-2036 Forest Management Plan will replace the 2006-2025 FMP and contain specifics for when, where and how timber will be managed to balance social, economic, and environmental objectives for the area. The FMP will be developed in accordance with all applicable acts, regulations, policies, and ground rules. The primary documents guiding forest management are the Forests Act, the Timber Management Regulation, and the Alberta Forest Management Planning Standard (Version 4.1 April 2006). The FMP area is located within the South Saskatchewan Land-Use Framework Region and will be in alignment with the South Saskatchewan Regional Plan (SSRP) and the Livingstone Porcupine Hills Land Footprint Management Plan. Figure 1 illustrates the forest management planning hierarchy and the operational plans, Timber Harvest Planning and Operating Ground Rules required by the Alberta government.

Figure 1: Forest Management Planning Hierarchy



Development of the forest management plan is a dynamic process, incorporating knowledge from research, policies and legislation that regulate the forest industry, and ongoing review of performance from previous plans and operations. One of the first steps we are undertaking is the review of the Values, Objectives, Indicators, and Targets for the plan. This is an opportunity to develop the plan with an updated set of values and objectives that will serve as a foundation for FMP development.

Forest management plans fit into a defined scope. They must abide by higher level plans and processes that have been developed in order to sustainably operate on Crown land.

### Managing Alberta's Timber Resources

Timber resources in Alberta are allocated through the forest tenure system. This provides a mechanism to manage timber resources in the Province, but land and resource ownership is retained by the Crown

(public land model). Crowsnest Forest Products is a forest tenure holder in the Province of Alberta through the Forest Management Agreement #2100047 (see map at end of document).

Crowsnest Forest Products' key roles and responsibilities as a tenure holder are reflected in documents such as the *Forests Act*, regulations issued pursuant to the *Forests Act*, (including Timber Management Regulation and the Forest (Ministerial) Regulation), forest tenure documents, forest policy directives, forest management plans and Timber Harvesting Planning and Operating Ground Rules. Pursuant to these agreements and dispositions, operational forest management activities undertaken become the responsibility of tenure holders but the Government of Alberta (GoA) retains control of these activities through review and approval of Forest Management Plans, General Development Plans and Annual Operating Plans. A Forest Management Agreement is still subject to following higher level Acts, regulations and plans for the region, the Province, and the Country (see useful links and key Acts on at the end of this document).

Forest Management Agreements provide the right to establish, grow, harvest and remove timber (FMA clause 2(1)) in the FMA area. An FMA does not provide authority over other companies, land use or non-timber resource users, nor does an FMA provide authority for cumulative effects management. The level of authority provided through an FMA are specifically prohibited from restricting access or constraining Alberta's right to manage other resources, including the allocation of land for other industrial uses. The FMA specifies the need for a forest management plan, following the forest planning standards. The primary focus of a forest management plan is forest vegetation and to mitigate the potential impact of forest operations on other values and uses. CFPs' Forest Management Plan will be a twenty-year plan, which is renewed every ten years, and guides operations and activities for the duration.

### **Value and Objective Development**

Values, Objectives, Indicators and Targets (VOITs) form the basis of the FMP performance monitoring program. Values and Objectives are the first two components in the overall structure of developing VOITs. Below is the Alberta Forest Management Planning Standard definition of a VOIT:

- Value – A characteristic, component or quality considered by an interested party to be important in relation to a Canadian Standards Association (CSA) sustainable Forest Management (SFM) element or other locally identified element (see list of useful acronyms at end of document)
- Objective – a broad statement describing a desired future state or condition of values
- Indicator – a variable that measures or describes the state of condition of a value
- Target – a specific statement describing a desired future state of condition of an indicator. Targets should be clearly defined, time-limited, and quantified, if possible.

Values and objectives represent broad landscape level items, with indicators and targets being specific variables to monitor and measure.

To begin the forest management planning process, the Forest Resource Management Planning Section from the Alberta Government has provided a list of draft VOITs (Working Version October 5<sup>th</sup>, 2022), see table below.

Input from consultation can be integrated into the FMP as it develops. At this stage, we are looking for input into the VOITs. Additionally, new VOITs may be suggested and explored through review and consultation. If there are specific areas of concern they will be thoughtfully considered and may be included into the contributing landbase, timber supply modelling, and the spatial harvest sequence. Concerns related to operational practices (silvicultural strategies, access plans, harvest operations, etc.) will be considered and could contribute to a strategy for operational implementation of the FMP.



CCFM Criterion 1. Biological Diversity											
CSA SFM Element 1.1 Ecosystem Diversity: Conserve ecosystem diversity at the landscape level by maintaining the variety of communities and ecosystems that occur naturally in the Defined Forest Area (DFA)											
ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
1	1.1.1 Landscape scale biodiversity	1.1.1.1 Maintain biodiversity by retaining the full range of cover types and seral stages <sup>3</sup>	Area of old, mature, and young forest in each DFA subunit <sup>4</sup> by cover class <sup>5</sup>	Over the 200 year planning horizon; a) Gross landbase: greater than X% old forest, greater than Y% mature plus old forest, less than Z% young forest; and b) Net landbase: greater than X% old forest, greater than Y% mature plus old forest, less than Z% young forest  Note: Old forest retention shall include the full natural range of ages	Targets and seral stage definitions shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. Productivity class)	Planning Standard	Spatial Harvest Sequence (SHS)	Regular updates to inventory	<b>FMP:</b> Tables of indicators (values and targets) at 0, 10, 50, 100 and 200 years. Maps of indicators at 0, 10 and 50 years  <b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report [Compare time 0 of previous FMP to Classified Landbase (CLB) of new FMP]	Area (ha) of old and mature forests in each DFA subunit by cover class shall be between 90% and 100% of target areas. Area of young forest in each DFA subunit by cover class shall not exceed 110% of target area	Adjust strategies in subsequent Forest Management Plan (FMP)
2		1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	a) Range of patch <sup>6</sup> sizes by subunit and entire DFA	a) A distribution of harvest area sizes that will result in a patch size pattern over the 200 year planning horizon approximating patterns created by natural disturbances	Targets shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. productivity class)	Planning Standard	Spatial and temporal harvest planning. Patch size distribution targets are set for forest patches less than 20 years old	Regular updates to forest inventory	<b>FMP:</b> Tables of area of forest in each patch size class by subunit at 0, 10, and 50 years (or end of first rotation). Maps of patch size classes at 0, 10, and 50 years, (or end of first rotation)  <b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	a) At the end of the 10-year FMP term the target distribution is achieved; or demonstrated progress to achieving target in one rotation where the pattern has deviated significantly from the target	Adjust strategies in subsequent FMP
3			b) Area of old interior forest <sup>7</sup> of each cover class by subunit and entire DFA	b) Area of old interior forest will not be less than X% of each cover class over the next 200 years	Targets shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. productivity class)	Planning Standard	Spatial and temporal harvest planning	Regular updates to forest inventory	<b>FMP:</b> Maps and Tables of indicator at 0, 10, and 50 years  <b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	b) Target is achieved for at least 80% of the planning period with variance not exceeding 20% below target	Adjust strategies in subsequent FMP
4		1.1.1.3 Maintain biodiversity by minimizing access	a) Open all-weather forestry road density by subunit	a) Less than X km/km <sup>2</sup>	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard	Develop a strategy that coordinates access with other resource users, spatial/temporal sequencing of harvest, road closures and decommissioning. (SHS and long-term corridor access plan)	Regular updates to forest inventory	<b>FMP:</b> Table of road density by subunit at 0 and 10 years. Map of existing and proposed open and closed all weather roads. Report forestry roads and total (all users) roads  <b>Performance:</b> Stewardship Reports	A variance not exceeding +/-20% must be achieved	Adjust strategies in subsequent FMP



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
5			b) Open seasonal/temporary forestry road length by DFA	b) Less than X km by subunit	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard	Road construction, maintenance and reclamation activities	Road plan (Operating Ground Rule) OGR 11.2	<b>Performance:</b> Stewardship Reports	A variance not exceeding +/-20% must be achieved	Adjust strategies in subsequent AOPs
6		1.1.1.4 Maintain plant communities uncommon in DFA or province	Area or occurrence of each uncommon plant community within DFA	X% of identified community will be maintained (separate target for each identified community)	Geographic Information System (GIS) analysis, Alberta Vegetation Inventory (AVI), ecosite phases, Alberta Conservation Information Management System (ACIMS), plant community classification and tracking list. Predict and identify occurrence of uncommon plant community	Planning Standard	Coordinating with other resource users, spatial planning of harvest and road construction, OGRs	Regular updates to inventory	<b>FMP:</b> Table with descriptive list and targets. Map(s) displaying known locations of uncommon plant communities.  <b>Performance:</b> Stewardship Reports	At the end of the 10-year FMP term the target is achieved	Adjust strategies in subsequent AOPs
7		1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	a) Area of unsalvaged burned forest	a) Targets will be consistent with the Fire Salvage Planning and Operations – Directive No. 2007-01	Targets based on Fire Salvage Planning and Operations - Directive No. 2007-01. Ensure consistency with FireSmart objectives	Fire Salvage Planning and Operations - Directive No. 2007-01	Salvage planning	Organization reports, air photo interpretation, ground surveys, post harvest assessments	<b>FMP:</b> Table and map of natural disturbances within the last 10 years -salvaged and unsalvaged. Report area (ha).  <b>Performance:</b> Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs
8			b) Area of unsalvaged blowdown	b) In areas of significant blowdown greater than X% will be left unsalvaged	Targets are to be based on sound science, ecological considerations and disturbance regimes	Planning Standard	Salvage planning	Inventory updates	<b>Performance:</b> Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs
9		1.1.1.6 Retain ecological values and functions associated with riparian zones	Compliance with OGR	Consistent with OGR	OGR	Federal Fisheries Act, Water Act	Planning, TSA, OGRs	Organization reports, air photo interpretation, ground surveys, post harvest assessments or other existing compliance monitoring systems	<b>Performance:</b> Stewardship Reports	No variance	Immediate remedial action and/or administrative penalty



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
10	1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	a) % area / volume / stems residual structure (both living and dead), within a harvest area, representative of the status (live / dead), sizes, and species of the overstorey trees by subunit and entire DFA	a) A combination of single stems, clumps, and islands comprising X% of the harvested area/volume/stems within a subunit Note: A wide range in variability in harvest area level retention within a subunit is desired as long as the target level is achieved	Wildlife zones, roadside vegetation screens, recreational values, aesthetics, local knowledge, ACIMS, Alberta Biodiversity Monitoring Institute (ABMI) and Fisheries and Wildlife Management Information System (FWMIS)	Occupational Health and Safety Act, Forest and Prairie Protection Act	Implement residual structure retention strategies and OGRs	Organization reports, air photo interpretation, ground surveys, post harvest assessments	<b>Performance:</b> Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent FMP
11			b) Percentage of harvested area by subunit with downed woody debris <sup>8</sup> equivalent to preharvest conditions	b) X% of harvest areas having downed woody debris retained on site	Assess preharvest downed woody debris condition by subunit or stand level average	Planning Standard	Organization developed standards	Organization developed during FMP planning	<b>Performance:</b> Stewardship Reports, report % of harvest areas with retained downed woody debris	FMP determined	Adjust strategies in subsequent FMPs
12		1.1.2.2 Maintain integrity of sensitive sites	Sensitive sites (e.g. mineral licks, major game trails) by subunit and entire DFA	Strategies to maintain consistent with provincial guidelines/OGRs	Local knowledge, ACIMS, ABMI	Planning Standard	Organization developed standards for sensitive site protection, OGRs 7.7.4	Organization reports, air photo interpretation, ground surveys	<b>Performance:</b> Stewardship Reports	None	Adjust strategies in subsequent FMPs
13		1.1.2.3 Maintain aquatic biodiversity by minimizing impacts of watercourse crossings	a) Permanent forestry watercourse crossings in compliance with Code of Practice for Watercourse Crossings b) Temporary forestry watercourse crossings in compliance with the Alberta Timber Harvest Planning and Operating Ground Rules	a) Permanent forestry watercourse crossing designs meet standards of the Code of Practice for Watercourse Crossings b) Temporary forestry watercourse crossing designs meet standards in the Alberta Timber Harvest Planning and Operating Ground Rules	a) Code of Practice for Watercourse Crossings b) Alberta Timber Harvest Planning and Operating Ground Rules	a) Water Act, Water (Ministerial Regulation) and Code of Practice for Watercourse Crossings b) Forests Act, TMR, and Alberta Timber Harvest Planning and Operating Ground Rules	Road and watercourse planning, construction, monitoring, maintenance and reclamation activities	a) Watercourse Crossing Management b) Alberta Timber Harvest Planning and Operating Ground Rules c) Company watercourse crossing monitoring program	<b>Performance:</b> Stewardship Reports Report all company watercourse monitoring and Forest Operations Monitoring Program results; including number, type and status of all watercourse crossings	None	Identify causal factors associated with incidents. Adjust strategic and operational practices to eliminate frequency and severity of incidents



CCFM Criterion 1. Biological Diversity											
CSA SFM Element 1.2 Species Diversity: Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained throughout time											
ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
14	1.2.1 Viable populations of identified plant and animal species	1.2.1.1 Maintain habitat for identified high value species (i.e. economically valuable, socially valuable, species at risk, species of management concern)	a) Number of hectares of primary and secondary habitat from the fRI Grizzly Bear model, as measured at time 0 (CLB effective date) by DFA; b) Percent change in the Barred owl potential breeding pairs and Resource Selection Function (RSF) value from (CLB effective date) by DFA; c) Percent change in American marten habitat suitability index from (CLB effective date) by DFA; and d) Percent change in relative abundance value of five songbird species (Canada Warbler, Black-throated Warbler, Brown Creeper and Ovenbird. Also Bay-Breasted Warbler and/or Varied Thrush (depending on FMA) from (CLB effective date) by	a) Maintain or increase the number of hectares of primary and secondary habitat from the fRI Grizzly Bear model, as measured at time 0; b) Maximum 15% reduction in the breeding pairs indicator over the 200 year planning horizon and 15% reduction in the RSF indicators over the 200 year planning horizon; c) Maximum 15% reduction in the indicator over the 200 year planning horizon; and d) Maximum 15% reduction in the indicator over the 200 year planning horizon.	Habitat models (provided by the Government of Alberta (GoA)). Based on sound science, ecological considerations, wildlife zones, Committee on the Status of Endangered Wildlife in Canada (COSEWIC) list, provincially listed species, ABMI, ACIMS, Recovery plans, government priorities, public consultation, habitat suitability analysis, literature review, observation data, local and traditional knowledge	Recovery plans for species at risk, Federal Species at Risk Act	Harvesting plans, road construction, OGRs, planning and implementation, adherence to provincial wildlife guidelines. Adhere to SHS	Updates to vegetation inventory and habitat modelling	<b>FMP:</b> a) Table and maps of current (time zero) and future (10 and 20 years) landscape conditions for core and secondary habitat zones, core and secondary sink zones, non-critical habitat and road density; b) Tables of breeding pairs and RSF at 0, 10, 20, 50, 100 and 200 years and maps of RSF value and breeding pairs at 0, 10, 20 and 50 years; c) Tables of habitat suitability at 0, 10, 20, 50, 100 and 200 years and maps of habitat suitability at 0, 10, 20 and 50 years; and d) Tables of relative abundance at 0, 10, 20, 50, 100 and 200 years and maps of relative abundance at 0, 10, 20 and 50 years.  <b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent FMP
CCFM Criterion 1. Biological Diversity											
CSA SFM Element 1.3 Genetic Diversity: Conserve genetic diversity by maintaining the variation of genes within species											
15	1.3.1 Genetic integrity of natural tree populations	1.3.1.1 Retain "wild forest populations" <sup>9</sup> for each native tree species in each seed zone through establishment of in situ reserves by Alberta and tenure holders	Where applicable, number and area (ha) of in situ genetic conservation areas	Wild forest populations are retained as per requirements set forth in the Alberta Forest Genetic Resource Management and Conservation Standards (FGRMS) and as guided in the Gene Conservation Plan for Native Species of Alberta Second Edition (GCP). Targets to be determined in accordance with FGRMS	Gaps and needs as identified in GCP and requirements set for forth in FGRMS	Timber Management Regulation (TMR) 144.2(1) Requirements to meet this TMR are provided by FGRMS	GCP, FGRMS and GOA/Industry Tree Improvement Cooperatives. Identified conservation areas are designated by a protective disposition (i.e. ISP, DRS) in coordination between GOA and the Company	Stewardship Reporting and FGRMS mandatory reports	<b>FMP:</b> If applicable, table showing number and status of gene conservation areas and number provided in the DFA. If applicable, map showing locations of gene conservation areas.  <b>Performance:</b> Stewardship Reports and FGRMS mandatory reports. Stewardship reporting requirements to be complete by end of first stewardship period	At the end of the 10-year FMP term the target is achieved or exceeded. No variance	Where needed, adjust strategies as per Forest Health and Adaptation Section requirement and in subsequent FMP



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
16		1.3.1.2 Retain wild forest genetic resources through ex situ conservation	Where applicable, number or amount of genetic materials conserved ex situ as field trials, experiments, clonal banks, arboretum, and long-term seed storage	Wild forest genetic resources through ex situ conservation are retained as per requirements set forth in FGRMS and as guided by the Ex situ Conservation Plan for Forest Genetic Resources in Alberta (Ex situ CP) Targets to be determined in accordance with FGRMS	Gaps and needs as identified in Ex situ CP and requirements set forth in FGRMS	TMR 144.2(1) Requirements to meet this TMR are provided by FGRMS	Ex situ CP, FGRMS and GoA/Industry Tree Improvement Cooperatives	Needs for ex situ gene conservation will be continuously identified as provincial forest management priorities and environmental challenges arise	<b>FMP:</b> If applicable, table and map showing number of provenances, genotypes and seedlots and their origin within the DFA  <b>Performance:</b> Stewardship Reports and FGRMS mandatory reports Stewardship reporting requirements to be complete by end of first stewardship period	Where ex situ gene conservation is set up, no variance from targets as set by FGRMS is acceptable unless identified and approved in the FMP approval process. Adjustment to targets and objectives are allowable as more research and development bring new data and parameters forward	GOA approved plan to address variance
<b>CCFM Criterion 1. Biological Diversity</b>											
<b>CSA SFM Element 1.4 Protected Areas: Respect protected areas identified through government processes</b>											
17	1.4.1 Areas with minimal human disturbances within managed landscapes	1.4.1.1 Integrate trans-boundary values and objectives into forest management	Stakeholder consultation	Ongoing consultation with relevant protected areas agencies	Link to consultation objective in Planning Standard or other existing consultation processes	Planning Standard	Management planning	Documentation of consultation processes	<b>Performance:</b> Stewardship Reports	None	Adjust strategies in subsequent FMP





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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
CCFM Criterion 2. Ecosystem Productivity											
CSA SFM Element 2.1 Ecosystem resilience											
18	2.1.1 Reforested harvest areas	2.1.1.1 Reforest all harvested areas	Annual % of openings that: a) meet or exceed the Reforestation Standard of Alberta (RSA) establishment survey minimum stocking and species composition standards for the declared regenerated yield stratum; b) meet or exceed the RSA establishment survey minimum stocking and species composition standards for an alternate regenerated yield stratum; and c) do not achieve the RSA establishment survey minimum stocking and/or species composition standards for any regenerated yield strata and are re-treated within one year.  Indicators a, b and c are to be reported separately	The sum of Indicators a, b and c = 100% of openings	Direction from Alberta	TMR 141.6(1) and 141.6(2); RSA	Implementation of silviculture strategies that ensure the target stocking and species composition is achieved for the opening	RSA establishment survey protocols	Performance: ARIS, AOP, Stewardship Reports	None	Adjust silviculture strategies
19		2.1.1.2 Meet or exceed the C and D Mean Annual Increment (MAI) standard for the population of openings surveyed in a given quadrant	Summed difference between target and actual C and D MAIs for openings surveyed in a five year quadrant, as reported to ARIS	100% of target	Direction from Alberta	TMR 141.7(1) and 141.7(2); RSA	Implementation of silviculture strategies that ensure the target productivity is achieved for the population of openings	RSA performance survey protocols	Performance: ARIS, AOP, Forest Management Branch, Stewardship Reports	Meet or exceed the target C and D MAI for the DFA	Adjust silviculture strategies
20	2.1.2 Maintenance of forest landbase	2.1.2.1 Limit conversion of productive forest landbase to other uses	Amount of change in forest landbase	A program to maintain the forest landbase	Forest inventory and land use data	Planning Standard	Maintain current forest cover inventory and land use updates	Inventory and land use systems	Performance: Stewardship Reports	Report actual	Adjust net landbase projections in next TSA



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
21		2.1.2.2 Recognize lands affected by insects, disease or natural calamities	Amount of area affected	Area (ha) affected by significant outbreaks, infestations, natural calamities	GoA and Company forest health surveys, inventory updates	Planning Standard, Alberta Forest Health Strategy and Shared Roles and Responsibilities between GoA and the Forest Industry	Maintain up-to-date information	GoA and Company annual surveys	<b>Performance:</b> AOP and Stewardship Reports	Report actuals	Event specific
22	2.1.3 Control invasive species	2.1.3.1 Control invasive plants	Invasive plant program	Invasive plant program in place and implemented	Field inventories	Weed Management in Forestry Operations Directive 2001-06	Co-operative programs	Field inventories	<b>Performance:</b> Inspections summarized in Stewardship Reports	Report actuals	Improve invasive plant program
<b>CCFM Criterion 3. Soil and water</b> <b>CSA SFM Element 3.1 Soil quantity and quality</b>											
23	3.1.1 Soil productivity	3.1.1.1 Minimize impact of roading and bared areas in forest operations	<p>Option 1: Compliance with OGRs limiting percent of total harvest area containing roads, landings and bared areas *Applicable to an FMP without a commitment to decompact (where necessary) and reforest disturbed areas</p> <p>Option 2: Compliance with OGRs directing both decompaction where necessary as well as compliance with the FMP Reforestation Strategy Table. *Applicable to an FMP with a commitment to decompact (where necessary) and reforest disturbed areas</p>	<p>Option 1: Less than 5% of total harvest area or as indicated in FMP specific addendum</p> <p>Option 2: Complete compliance with OGRs</p>	Direction from Alberta	OGRs	Effective planning and supervision of operations	Field inspection reports and audits	<p><b>Performance:</b> Inspection reporting, Stewardship Reports</p> <p>Option 1: Summary of total area of roads, landings and bared areas relative to total harvested area</p> <p>Option 2: Summary of total area of roads, landings and bared areas that were not reforested with a rationale as to why</p>	None	Immediate remedial action to correct
24		3.1.1.2 Minimize incidence of soil erosion and slumping	Incidence of soil erosion and slumping	Complete compliance	Direction from Alberta	OGRs and Soils Guidelines	Effective planning and supervision of operations and adherence to relevant OGRs	Field inspection reports and audits	<b>Performance:</b> Inspection reporting, Stewardship Reports	None	Immediate remedial action to correct



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
<b>CCFM Criterion 3. Soil and water</b>											
<b>CSA SFM Element 3.2 Water quantity and quality</b>											
25	3.2.1 Water quantity	3.2.1.1 Limit impact of timber harvesting on water yield	Forecast impact of timber harvesting on water yield.	a) Water yield = 15% (Equivalent ECA = <30%) b) Zero Water Act penalties, Complete compliance with FMP	ECA and Water Yield Models Water Strategy and local needs	Water Act, Planning Standard	Adherence to forecast harvest sequence and relevant OGRs	Report on area (ha) harvested compared with planned harvest area	<b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	<20 percent SHS variance	Adjust harvest pattern if problems arise
26	3.2.2 Effective riparian habitats	3.2.2.1 Minimize impact of operations in riparian areas	Riparian buffers maintained as outlined in OGRs	Complete compliance	Direction from Alberta	OGRs	Effective planning and supervision of operations	AOPs, Stewardship Reports	<b>Performance:</b> AOP, Stewardship Reports	None	Immediate correction and / or administrative penalty
<b>CCFM Criterion 5. Multiple Benefits to Society</b>											
<b>CSA SFM Element 5.1 Timber and non-timber benefits</b>											
27	5.1.1 Sustainable timber supplies	5.1.1.1 Establish appropriate AACs	Process described in Annex 1 is followed and standards are met	Complete compliance	Consultation in planning process	Forests Act and TMR	Effective implementation of planning process	Multiple means: Forest Revenue Scaling and Tenure System (FOREST), ARIS, AOPs, Stewardship Reports, filed inspection	<b>Performance:</b> 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	Issue specific	Adjust AAC using most current and relevant information
<b>CCFM Criterion 5. Multiple Benefits to Society</b>											
<b>CSA SFM Element 5.2 Communities and Sustainability</b>											
28	5.2.1 Risk to communities and landscape values from wildfire is low.	5.2.1.1 To reduce wildfire threat potential by reducing fire behaviour, fire occurrence, threats to values at risk and enhancing fire suppression capability	a) Percentage reduction in "Summer" Fire Behaviour Potential area (ha) within the FireSmart Community Zone b) Percentage reduction in "Summer" Fire Behaviour Potential area (ha) across the DFA now and over the planning horizon	a) Reduce the area (ha) in the high, very high and extreme "Summer" Fire Behaviour Potential rating within FireSmart Community Zones b) Reduce the area (ha) in the high, very high and extreme "Summer" Fire Behaviour Potential rating across the DFA	Fire Behaviour Potential and Fuel Grid Assessment (Annex 3 Report Provided to FMA Holder) FMA Holder assessment of the SHS developed using recommendations from Annex 3 Report	Planning Standard	SHS, thinning, partial harvest techniques, prescribed burns, FireSmart Treatments	AOPs, Compartment Assessments	<b>FMP:</b> Maps Fire Behaviour Potential, Fuel Grid, Historical Wildfires and Natural Subregions. <b>Performance:</b> Stewardship Reports - Report on actual harvested area a) and b)	Issue specific	Adjust harvest sequence



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ID	Value	Objective	Indicator	Target <sup>1</sup>	Means to Identify Target <sup>2</sup>	Legal / Policy Requirements	Means of achieving Objective and Target <sup>2</sup>	Monitoring and Measurement	Reporting	Acceptable Variance	Response
29	5.2.2 Provide opportunities to derive benefits and participate in use and management	5.2.2.1 Integrate other uses and timber management activities	Extent of various uses	To be determined in the planning process	Consultation and co-operation	Legislation and policy	Effective implementation of plans	AOPs, Compartment Assessments	<b>Performance:</b> Stewardship Reports	Issue specific	Adjust activities
30	5.2.3 Forest Productivity	5.2.3.1 Maintain Long Run Sustained Yield Average	Regenerated stand yield compared to natural stand yield	No net decrease from the natural stand productivity	FMP TSA	Planning Standard	Effective implementation of plans	Stewardship Reports	<b>Performance:</b> TSA 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	Report actual	Adjust AAC using most current and relevant information
<b>CCFM Criterion 6. Accepting society's responsibility for sustainable development</b> <b>CSA SFM Element 6.1 Indigenous and treaty rights and Indigenous forest values</b>											
31	6.1.1 Compliance with government regulations and policies	6.1.1.1 Implement Indigenous Consultation Process	Meet Alberta's current expectations for Indigenous consultation	Consult at the community level with designated representatives of affected Indigenous communities	The Government of Alberta Indigenous Consultation and Policy Guidelines	Planning Standard	Effective implementation of Indigenous Consultation Process		<b>Performance:</b> Stewardship Reports or as required in Indigenous Consultation Process	None	Adjust activities
<b>CCFM Criterion 6. Accepting society's responsibility for sustainable development</b> <b>CSA SFM Element 6.2 Public participation and information for decision-making</b>											
32	6.2.1 Meaningful public participation is achieved	6.2.1.1 Implement Public Participation Process	Meet expectations of Section 5 of CSA Z809-02	To be determined in the planning process	Consultation	Planning Standard	Effective implementation of Public Participation Process		<b>Performance:</b> Stewardship Reports or as required in Public Participation Process	None	Adjust activities

Footnotes:

[1] "X" variable in target description to be determined by the FMP planning process.

[2] Items noted under the "Means to Identify Targets" and "Means of Achieving Objectives and Targets" are intended as suggestions and not meant to limit potential approaches. The list is not comprehensive or mandatory.

[3] Seral Stage: Seral stages definitions should include the following categories: Initiation, Establishment, Aggradation (stem exclusion), Mature, and Old (Song 2002, Ecological Basis for Stand Management in Alberta). Old forest is defined as stands 40 years older than MAI culmination age.

[4] Subunit: any acceptable stratification of the DFA. Delineation of planning "subunits" for the DFA will be made during FMP planning. However, delineation should reflect ecological considerations. Planning subunits may correspond to planning compartments.

[5] Cover-classes: definition will be developed through FMP planning. In general, cover-class is a coarser grouping than the cover type (AVI stand label) but provides finer resolution than the cover groups (C, CD, DC, D) and will reflect leading species and mixedwood types.

[6] Patch: a stand of forest in the same seral stage, and not split by a linear feature greater than 8m wide. Linear features in this definition include roads, pipelines, power lines, and rivers, but does not include seismic lines.

[7] Interior forest: a forested area greater than 100 hectares in size located beyond edge effect buffer zone [7.2] along the forest edge [7.1]. For interior forest objective use a common age definitions for all cover classes to prevent breaking up forest patches that have a common origin date.

[7.1] Forest edge: any of the following: a) a linear disruption in forest cover greater than 8m in width, or, b) the line along which forest seral stage class changes.

[7.2] Edge effect buffer zone: 60 m where adjacent area is non-forested or less than 40 years old; 30 m where adjacent forest stand is >= 40 years and less than mature forest; 0 m where adjacent stand is mature forest.

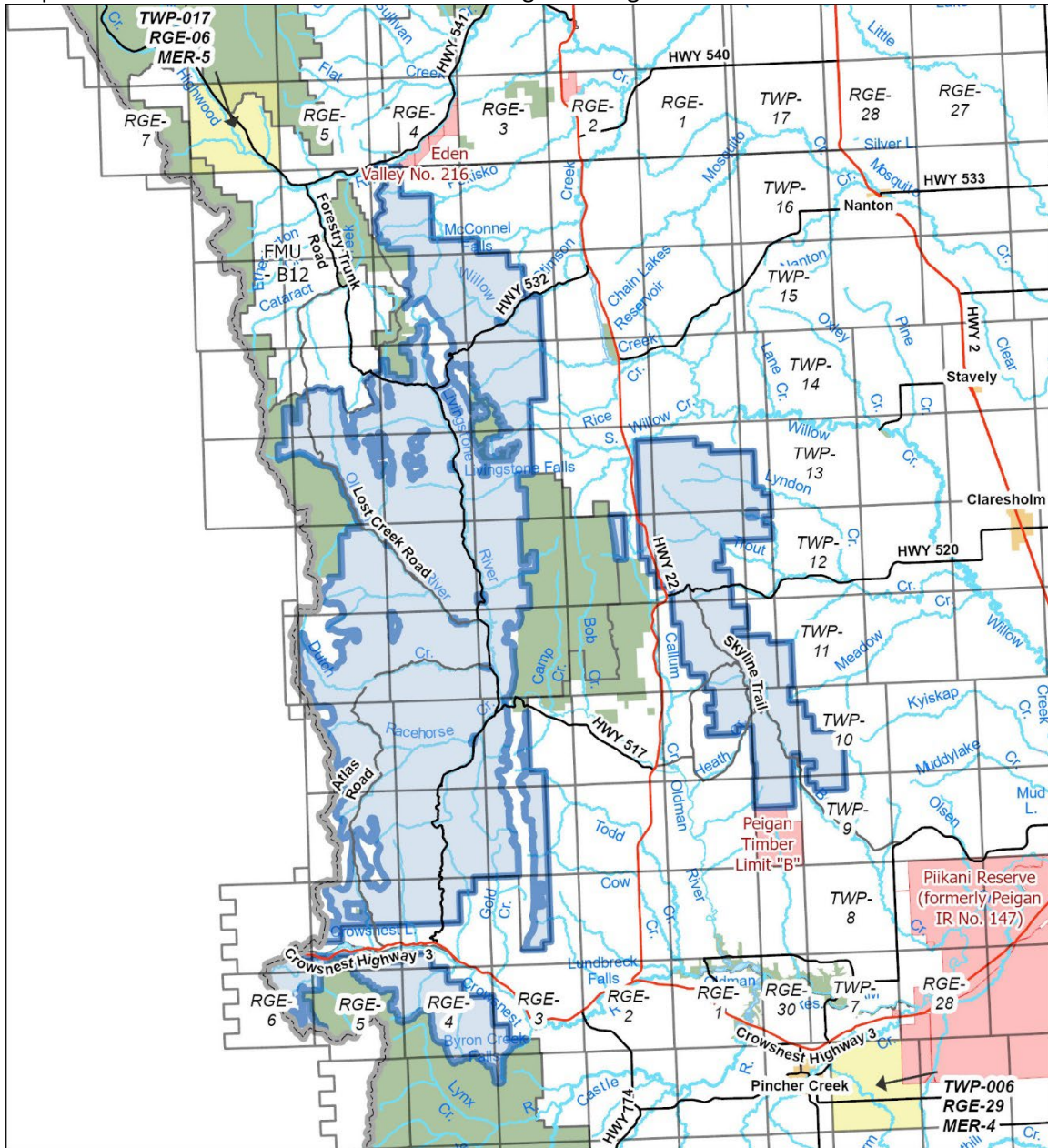
[8] Downed woody debris: wood lying at an angle of less than 45 degrees from the ground and having a diameter greater than 7.5 cm.

[9] Wild: genetic materials of native species originating from natural regeneration (FGRMS).



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Map of Crowsnest Forest Products Forest Management Agreement Area



### Crowsnest Forest Products

a subsidiary of Spray Lake Sawmills

**Legend:**

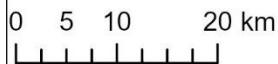
Crowsnest Forest Products FMA  
(area subject to consultation)  
~190,665 ha

First Nations

Parks & Protected Areas



Spray Lake Sawmills



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### ADDITIONAL USEFUL LINKS

Regional planning in Alberta including the South Saskatchewan Regional Plan  
<https://www.alberta.ca/regional-plans-and-recreation.aspx>

Spray Lake Sawmills B12 FMP  
<https://spraylakesawmills.com/woodlands/forest-management-planning/>

Spray Lake Sawmills Operating Ground Rules & Revisions  
<https://spraylakesawmills.com/woodlands/forest-management-planning/operating-ground-rules/>

### ACTS

*Provincial* - All Provincial acts are available at the Queen's Printer - [www.qp.alberta.ca](http://www.qp.alberta.ca)

**Forests and Prairie Protection Act** – Establishes the provision of wildfire management activities, programs and wildfire-related enforcement

**Forests Reserves Act** and regulation – Provides for the establishment of Forest Reserve

**Provincial Park legislation** – (*Provincial Parks Act and Wilderness Areas, Ecological Reserve, Natural Areas and Heritage Rangelands Act*) – Plays an important role in protecting natural diversity and intact habitat for supporting biodiversity, in addition to ensuring a wide range of recreation opportunities and tourism experiences.

**Public Lands Act and Public Lands Administration Regulation** – Provides for the settling of land disturbance standards and land conservation tools in support of biodiversity management.

**Water Act** – Provides for the allocation and use of Alberta's water resources and the protection of rivers, streams, lakes, wetlands and aquifers.

**Wildlife Act** – Provides for the designation and recovery of species at risk.

**Regulated Forestry Professionals Act** – Outlines mandatory registration for forestry practitioners & the means to define a Code of Ethics as well as the ability to enforce it.

### *Federal*

**Species at Risk Act (SARA)** – The Act designates a committee to report to the federal Minister of the Environment on threatened species and assess their conservation status as well as recommendations to recover threatened habitats.

**Navigation Protection Act** - Provides a schedule which clearly lists the major waterways for which regulatory approval is required prior to the placement of construction of a work.

**Federal Fisheries Act** – Protection of fish and fish habitat, through HADD (harmful alteration, disruption or destruction of fish habitat) and outlines when Fisheries and Oceans Canada (DFO) requires contact.

**Migratory Birds Convention Act** – Outlines the responsibility of Environment Canada to develop and implement policies and regulations to ensure the protection of migratory birds, their eggs and their nests.

### STANDARDS

**Alberta Forest Management Planning Standard Version 4.1. – April 2006**

The Alberta Forest Management Planning Standard (the Standard) and its Annexes, interpretive bulletins and updates comprise the standard for preparing and implementing Forest Management Plans (FMPs) in Alberta. Available at:

<https://www.alberta.ca/forest-management-manuals-and-guidelines.aspx>



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**SSRP AND SUB-PLAN INFORMATION**

South Saskatchewan regional planning

<https://www.alberta.ca/south-saskatchewan-regional-planning.aspx>

Livingstone Porcupine Hills Recreation Management Plan & Recreation Management Plan

<https://www.alberta.ca/south-saskatchewan-subregional-planning.aspx>

**USEFUL ACRONYMS**

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ALSA	Alberta Land Stewardship Act
AAF	Alberta Agriculture and Forestry
CSA	Canadian Standards Association
DFA	Defined forest area
FMA	Forest Management Agreement
FMP	Forest Management Plan
DFMP	Detailed Forest Management Plan
GoA	Government of Alberta
SFM	Sustainable Forest Management
SLS	Spray Lake Sawmills
CFP	Crowsnest Forest Products
SSRP	South Saskatchewan Regional Plans
VOIT	Value Objective Indicators & Targets