



Spray Lake Sawmills

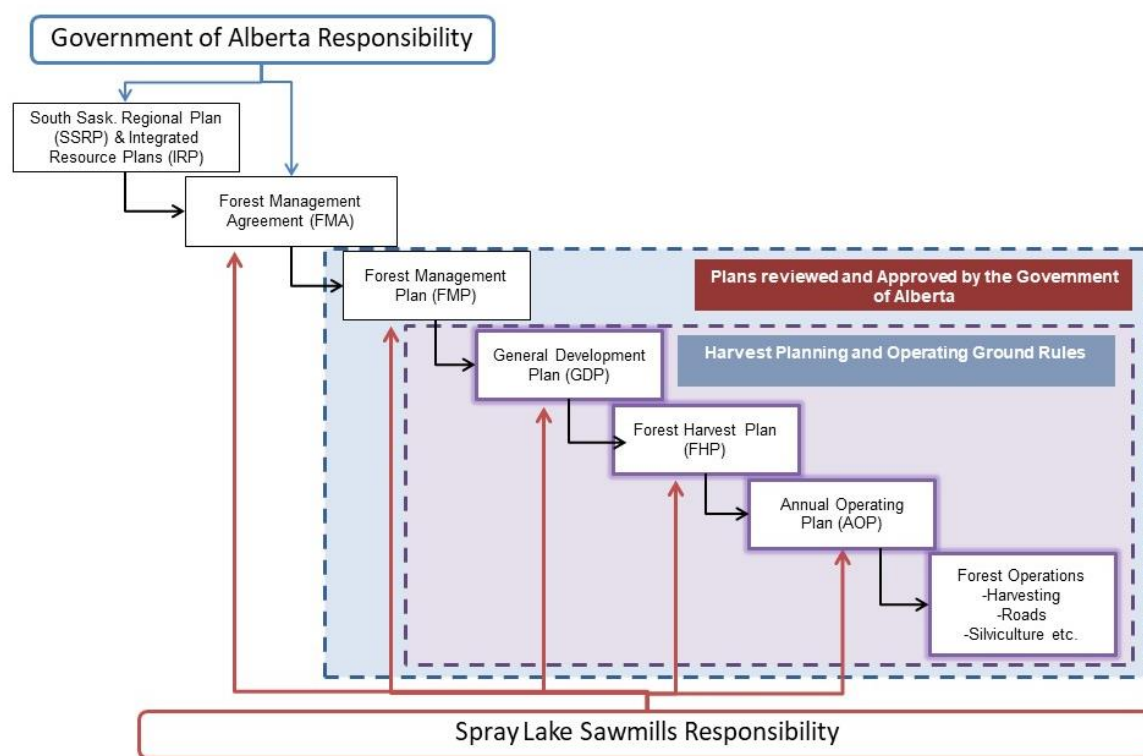
Milestone 3 Forest Management Plan Information Package

What is a Forest Management Plan?

Forest management plans (FMP) are a provincial regulatory requirement completed every 10 years. The FMP details where, when and how trees on Alberta Crown land are harvested and sustainably managed.

Figure 1-1 illustrates how the forest management planning process is inextricably linked to Alberta's Crown land management policy. Boxes with a purple outline are additionally required regulatory plans that flow out of the FMP.

Figure 1-1: Forest Management Planning Hierarchy



FMP Timelines

We have been in the process of renewing our forest management plan since 2015. Completing an FMP which includes: data collection, analysis, mapping, public and First Nations consultation, typically takes between two and five years.

After the FMP is submitted, it can take between five months or over a year to be reviewed, revised and approved by Alberta Agriculture and Forestry. On December 1, 2017 the 2018 FMP was extended to be submitted from September 1, 2018 to on or before September 30, 2020. The FMP timeline was extended as the company experienced delays with acquiring a new Alberta Vegetation Inventory (AVI). Presently we are on track to submitting the plan by September 30, 2020.

Managing Alberta's Timber Resources

Timber resources in Alberta are allocated through the forest tenure system. Spray Lake Sawmills (SLS) is a forest tenure holder in the Province of Alberta through our Forest Management Agreement (see map on page 5).

Within Spray Lake's Forest Management Agreement is the requirement to establish a forest management plan. The FMP is a twenty-year, strategic level plan, that guides where sustainable harvesting activities will occur for ten years. Even though the FMP is a twenty-year plan a new FMP is required every ten years.

Spray Lake Sawmills' is regulated as a tenure holder under the *Forests Act*, regulations issued pursuant to the *Forests Act*, (including Timber Management Regulation and Scaling Regulation), forest tenure documents, forest policy directives, forest management plans and timber harvesting and operating ground rules.

Forest management activities are the responsibility of the tenure holder while the Government of Alberta (GoA) retains regulatory control, as the FMP and operating plans are subject to GOA approval. An FMA is also subject to provincial and federal environmental legislation and regulations.

Forest Management Agreements provide the right to establish, grow, harvest and remove timber (FMA clause 2(1)) in the Defined Forest Area (DFA). An FMA does not provide authority over other companies or non-timber resource users, nor does an FMA provide authority to set cumulative impacts for the area; rather that is the responsibility of higher level plans (such as the South and North Saskatchewan Regional Plans) and/or Integrated Resources Plans.

The level of authority provided through an FMA are specifically prohibited from restricting access or constraining Alberta's right to manage other resources or allocate land for other industrial uses. The FMA and the Forest Management Plan only manage forestry and mitigate the impact of forest operations on other values and uses.

Values Objectives Indicators and Targets (VOITs)

Beginning in 2015, Spray Lake Sawmills engaged in a series of FMP/VOIT informational workshops to seek input from interested parties. The workshops introduced the planning hierarchy, the FMP process

and values and objective development. Since the workshops, an interdisciplinary plan development team (PDT), has formed and is now meeting on a regular basis. Additional updated FMP/VOIT informational workshops were held in the Fall of 2018.

Alberta Agriculture and Forestry provided an updated list of VOITs on March of 2018. Since March of 2018, Spray Lake Sawmills has been reviewing the VOITs with the Planning Development Team and aligning the public consultation with the updated AAF VOITs. The latest version of the VOITs is available on page 8.

VOITs form the basis of the FMP performance monitoring program and VOITs are defined by the Alberta Forest Management Planning Standard as follows:

- Value – A DFA characteristic, component or quality considered by an interested party to be important in relation to the Canadian Standards Association (CSA) Sustainable Forest Management (SFM) element or other locally identified element.
- 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.

FMP Progress to date:

- Concluding Milestone 2 for the First Nations and Public Consultation Plans.
- Completed Milestone 1 for the First Nations and Public Consultation Plans.
- Updated the FMP Public Participation Program, available on our website <https://www.spraylakesawmills.com/woodlands/forest-management-planning/>
- Added an email subscribe notification to keep interested parties up to date with FMP public consultation opportunities and updates.
- Completed six FMP/VOIT informational workshops to gather stakeholder and public input
- Captured new color imagery of the DFA
- Completed 100% of the new AVI inventory
- Completed 100% of our forest growth field sampling program
- Completed the net landbase and yield curve technical requirements-this analysis indicates where forestry will likely take place as well as the forest growth calculations.
- Completed the Draft Visual Quality Strategy
- October 2019, held an open house to review the Forest Management Plan status and present the landbase map, visual quality strategy map, and VOITs.
- Drafted preliminary timber supply analysis (TSA)- this analysis indicates the amount of timber to be sustainably harvested in consideration of the VOITs known as the annual allowable cut (AAC).
- Drafted preliminary nontimber assessment analysis (NTA)- this is how harvest levels are aligned with VOIT tradeoffs.
- Completed the VOIT wording and populated the VOIT metrics

- Drafted preliminary spatial harvest sequence (SHS)- the SHS areas indicate where harvesting is likely to occur over the next 20 years (page 6).
- Conducted six public advisory committee FMP update meetings covering the planning process, public participation plans, VOITs, net landbase, visual quality, timber supply analysis, spatial harvest sequence, non-timber assessments, and the spatial harvest sequence.
- Conducted 15 Planning Development Team (PDT) Meetings
- March 24, 2020, held a website open house to review and receive input on the Forest Management Plan status and present the preliminary timber supply/spatial harvest sequence with linkage back to the VOITs.
- June 5, 2020, 1st day of the draft FMP website open house to review and receive input on the draft Forest Management Plan document.

Milestone 3 Consultation Items

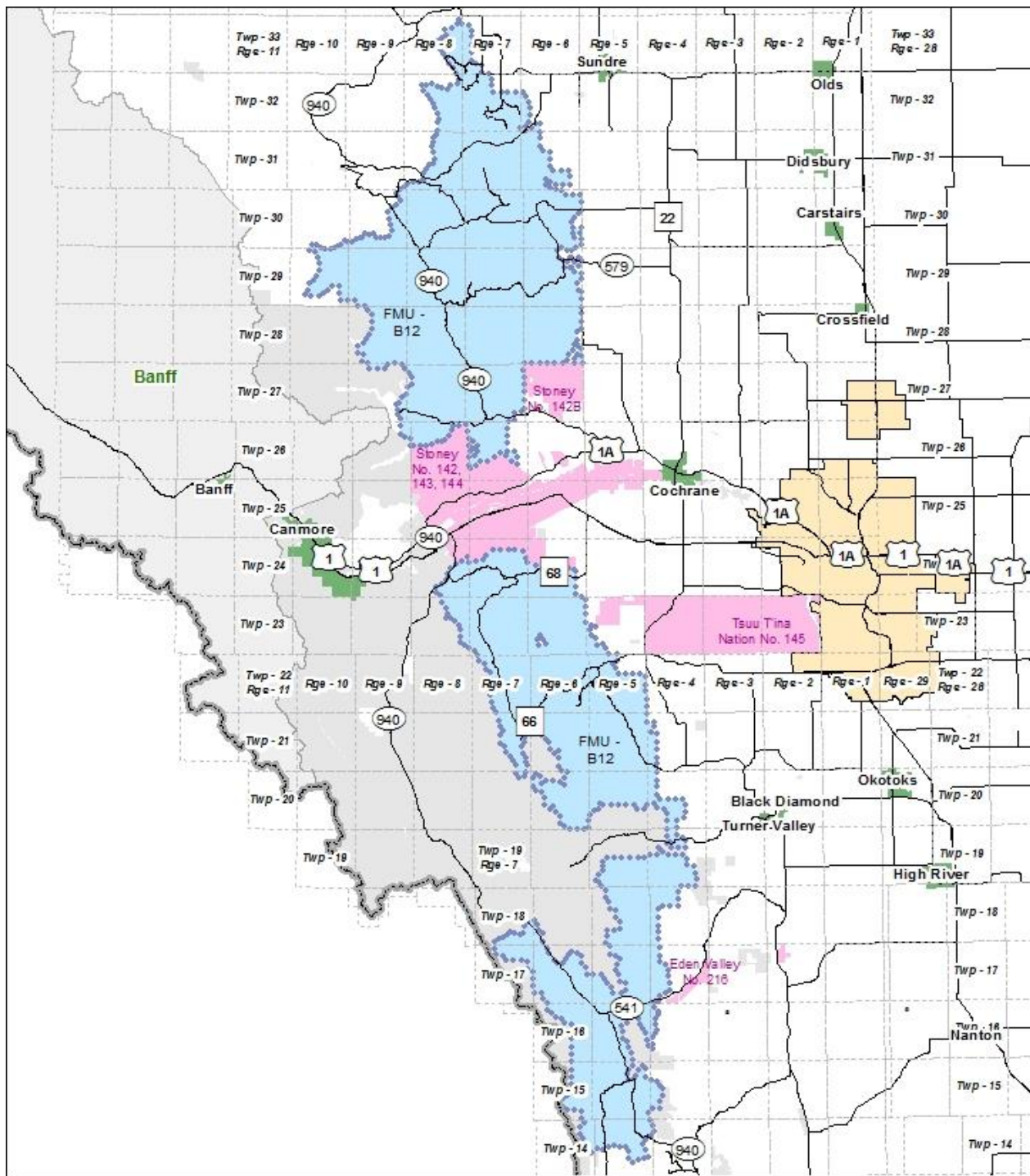
- The draft Forest Management Plan document. The draft document has 8 chapters and 7 annexes. The document includes a detailed discussion of milestones 1- values, objectives, indicators and targets and milestone 2- the land base and 20-year spatial harvest sequence. A plain language forest management plan explanation is provided on page 1 of this document. The draft 2021 Forest Management Plan is available on our website at:
<https://www.spraylakesawmills.com/woodlands/forest-management-planning/>

Future Consultation Opportunities:

The draft forest management plan is the final consultation milestone prior to submission of the final forest management plan this September.

The Spray Lake Sawmills website contains the following information for interested parties to review:

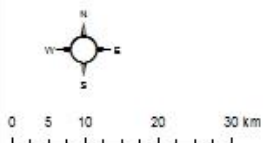
- FMP Milestone 3 information package
- The draft 2021 Forest Management Plan
- The Public Participation Program document
- News Events and Consultation opportunities
- A mechanism to email the company with input
- Informational videos covering: forest management planning, FMA planning, the FMA planning hierarchy, and an FMA overview.
- Public Advisory Committee terms of reference, current members and meeting minutes
- The Forest Management Agreement document
- The 2007 Detailed Forest Management Plan document
- The Five-Year Stewardship Report document
- The Timber Harvest Planning and Operating Ground Rules document



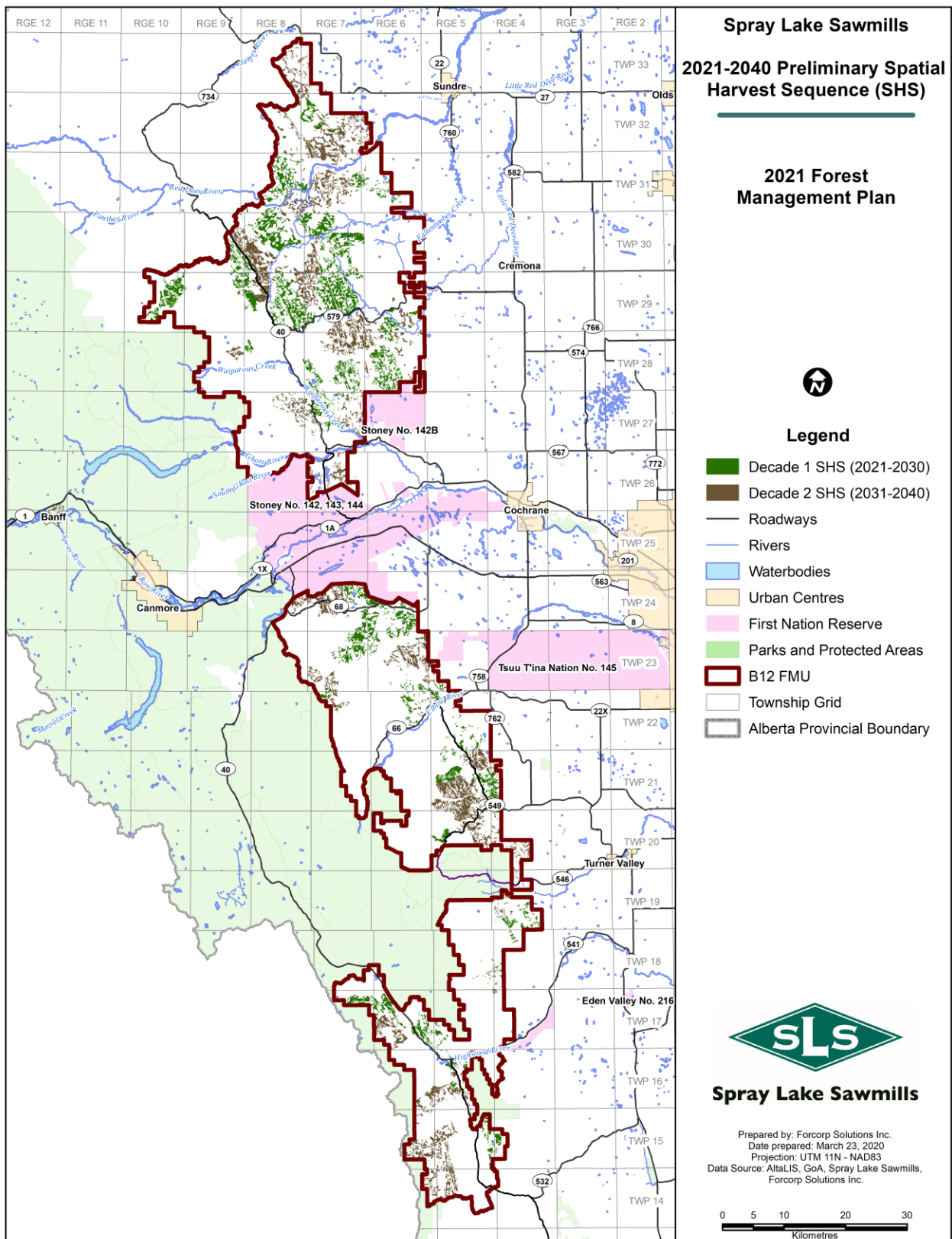
Spray Lake Sawmills (1980) LTD. Forest Management Planning Area

Legend

- Existing Road
- B12 FMU



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ADDITIONAL USEFUL LINKS

South Saskatchewan Regional Plan and process

<https://www.landuse.alberta.ca/RegionalPlans/SouthSaskatchewanRegion/SSRPConsultation/Pages/default.aspx>

Spray Lake Sawmills Previous DFMP & 5 Year Stewardship Report

<http://www.spraylakesawmills.com/woodlands/forest-management-planning/detailed-forest-management-plan/>

Spray Lake Sawmills Timber Harvest Planning and Operating Ground Rules

<http://www.spraylakesawmills.com/woodlands/forest-management-planning/operating-ground-rules/>

USEFUL ACRONYMS

ALSA	Alberta Land Stewardship Act
AAF	Alberta Agriculture and Forestry
AVI	Alberta Vegetation Inventory
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
SSRP	South Saskatchewan Regional Plans
VOIT	Value Objective Indicators & Targets
TSA	Timber Supply analysis
SHS	Spatial Harvest Sequence
NTA	Non-timber Assessments
PDT	Planning Development Team
AAC	Annual Allowable Cut
OGR's	Timber Harvest Planning and Operating Ground Rules
CCFM	Canadian Council of Forest Ministers
DLO	Department License of Occupation

Table 1: GoA VOIT working version (updated March 2020)

ID	Value	Objective	Indicator	Target
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)				
1	1.1.1 Landscape scale biodiversity	1.1.1.1 Maintain biodiversity by retaining the full range of cover types and seral stages	Area of old, mature, and young forest in the Defined Forest Area (DFA) by cover class. Reporting was completed using yield curve strata (HW, MIX, PL, SW).	Over the 200 year planning horizon: a) Gross landbase: greater than or equal to 36% old forest, greater than or equal to 42% mature plus old forest, less than or equal to 15% young forest; and b) Active forested landbase: greater than or equal to 15% old forest, greater than or equal to 22% mature plus old forest, less than or equal to 20% young forest. Note: Old forest retention shall include the full natural range of ages.
2	1.1.1 Landscape scale biodiversity	1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	Range of patch ² sizes for forest that is 20 years of age and less for the DFA	A distribution of harvest area sizes that will result in a patch size pattern over the 200-year planning horizon that is increasing in patch size.
3	1.1.1 Landscape scale biodiversity	1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	Area of old interior forest ³ in the DFA by cover class. Reporting was completed using yield curve strata (HW, MIX, PL, SW).	Area of old interior forest will not be less than 17% of HW stands, 17% of MIX stands, 21% of PL stands, and 22% of SW stands, over the next 200 years. Note: Target will be informed by the large amount of regional protected areas functioning within and adjacent to the DFA ⁴
4	1.1.1 Landscape scale biodiversity	1.1.1.3 Maintain biodiversity by minimizing access	Open all-weather forestry road (DLO) density for the DFA.	Less than 0.038 km/km ² at the time of the next FMP.
5	1.1.1 Landscape scale biodiversity	1.1.1.3 Maintain biodiversity by minimizing access	Open seasonal / temporary forestry road length by DFA. The GoA direction is to ignore gates when reporting for this item. Access management is not considered in the target.	Less than 330 km for the DFA at the time of the next FMP.
6	1.1.1 Landscape scale biodiversity	1.1.1.4 Maintain plant communities uncommon in DFA or province	Area or occurrence of each uncommon plant community within DFA.	Apply operational procedures to conserve uncommon plant communities for 100% of known and encountered occurrences.
7	1.1.1 Landscape scale biodiversity	1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	Area of unsalvaged burned forest.	Live trees: Retain unburned trees in green islands and retain patches recognizing timber condition, access, non-timber needs according to the directive "Fire Salvage Planning and Operations - Directive No. 2007-01".

ID	Value	Objective	Indicator	Target
8	1.1.1 Landscape scale biodiversity	1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	Area of unsalvaged blowdown.	In areas of significant blowdown (≥ 100 ha) that is salvagable, a minimum of 10% will be left unsalvaged.
9	1.1.1 Landscape scale biodiversity	1.1.1.6 Retain ecological values and functions associated with riparian zones	Compliance with OGR.	100% protection of watercourse buffers.
10	1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	% area / volume of residual structure (both living and dead), within a harvest area, -as outlined in the Company's structure retention document (to be provided to AAF) by DFA	3% by area to be internal to each harvest area and be representative of the pre-harvest stand composition. Note: A wide range in variability in harvest area level retention within the DFA is desired as long as the target level is achieved.
11	1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	Percentage of harvested area for the DFA with downed woody debris ⁵ equivalent to pre-harvest conditions.	75% of harvest areas having downed woody debris retained on site.
12	1.1.2 Local/stand scale biodiversity	1.1.2.2 Maintain integrity of sensitive sites	Sensitive sites (e.g. mineral licks, major game trails) as per the Operating Ground Rules that are protected in the DFA.	Strategies to maintain consistent with provincial guidelines / OGR.
13	1.1.2 Local/stand scale biodiversity	1.1.2.3 Maintain aquatic biodiversity by minimizing impacts of water crossings	Forestry water crossings in compliance with Code of Practice for Water Course Crossings within the DFA.	Designs meet standards of the Code of Practice for Water Course Crossings and OGRs.
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				
14	1.2.1 Viable populations of	1.2.1.1 Maintain habitat for identified high value	a) Number of hectares of primary and secondary habitat from the fRI Research (fRI)	a) Maintain or increase the number of hectares of primary and secondary habitat from the fRI Grizzly Bear model, as measured at time 0;

ID	Value	Objective	Indicator	Target
	identified plant and animal species	species (i.e., economically valuable, socially valuable, species at risk, species of management concern)	Grizzly Bear model, as measured at time 0 (CLB effective date) by DFA; b) Percent change in the Barred owl potential breeding pairs (habitat) and Resource Selection Function (RSF) value from May 1, 2019 by DFA; c) Percent change in American marten habitat suitability index from May 1, 2019 by DFA; d) Percent change in relative abundance value of three songbird species (Brown Creeper, Ovenbird, and Varied Thrush) from May 1, 2019 by DFA; e) Maintain identified Whitebark and Limber Pine trees, saplings and seedlings.	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; d) Maximum 15% reduction in the indicator over the 200 year planning horizon; e) A minimum of 95% protection of all known Whitebark and Limber Pine trees, saplings and seedlings. 100% protection of GoA long term monitoring installations.
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 ⁶ forest populations" for each native tree species in each seed zone through establishment of in-situ reserves by Alberta and timber disposition holders	Number and area (ha) of in-situ gene conservation areas.	Spray Lake Sawmills will coordinate work with the GoA to identify the number of required situ gene- conservation areas, some of which may not necessarily be within the DFA, with priority given to protected areas and the passive landbase.
16	1.3.1 Genetic integrity of natural tree populations	1.3.1.2 Retain wild ⁶ forest genetic resources through <i>ex-situ</i> conservation	Number and composition of forest tree seed populations established in seedbanks, clone banks or trials that are satisfactory to GoA.	Active conservation program for all Controlled Parentage Program plan species and other species in cooperation with Alberta To be established by GoA based on adequate representation of native tree species in conservation efforts to genetic loss within and among seed zones.
CCFM Criterion 1. Biological Diversity				
CSA SFM Element 1.4 Protected Areas: Respect protected areas identified through government processes				
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	Consultation with relevant stakeholders.	Ongoing consultation with relevant protected area agencies.
CCFM Criterion 2. Ecosystem Productivity				
CSA SFM Element 2.1 Ecosystem resilience				

ID	Value	Objective	Indicator	Target
18	2.1.1 Reforested harvest areas	2.1.1.1 Reforest all harvested areas	<p>Annual % of openings that:</p> <p>a) meet or exceed the Reforestation Standard of Alberta (RSA) establishment survey minimum stocking and species composition standards for the declared regenerated yield stratum;</p> <p>b) meet or exceed the RSA establishment survey minimum stocking and species composition standards for an alternate regenerated yield stratum; and</p> <p>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.</p> <p>Indicators a, b and c are to be reported separately.</p>	The sum of indicators a, b and c = 100% of openings.
19	2.1.1 Reforested harvest areas	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
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.	Net change of the gross forested landbase area within the DFA.
21	2.1.2 Maintenance of forest landbase	2.1.2.2 Recognize lands affected by insects, disease or natural calamities	Amount of area affected.	Area (ha) affected by significant forest disturbances such as insect infestations, fire, windthrow or other disturbance event.
22	2.1.3 Control invasive species	2.1.3.1 Control invasive plants	Invasive plant program	Invasive plant program in place and implemented.
CCFM Criterion 3. Soil and water				
CSA SFM Element 3.1 Soil quantity and quality				
23	3.1.1 Soil productivity	3.1.1.1 Minimize impact of roading and bared areas in forest operations	Compliance with OGRs.	Less than 5%.

ID	Value	Objective	Indicator	Target
24	3.1.1 Soil productivity	3.1.1.2 Minimize incidence of soil erosion and slumping	Incidence of soil erosion and slumping.	Complete compliance.
CCFM Criterion 3. Soil and water				
CSA SFM Element 3.2 Water quantity and quality				
25	3.2.1 Water quantity and quality	3.2.1.1 Limit impact of timber harvesting on water yield	Forecast impact of timber harvesting (over 200 years) on water yield.	a) Water yield = 15% (Equivalent ECA = <30%). b) Zero Water Act penalties, Complete compliance with FMP.
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.	Adherence to approved OGR buffer and/or approved OGR deviation.
CCFM Criterion 5. Multiple Benefits to Society				
CSA SFM Element 5.1 Timber and non-timber benefits				
27	5.1.1 Sustainable timber supplies	5.1.1.1 Establish appropriate Annual Allowable Cut (AACs)	Process described in Annex 1 is followed and standards are met.	Complete compliance.
CCFM Criterion 5. Multiple Benefits to Society				
CSA SFM Element 5.2 Communities and Sustainability				
28	5.2.1 Risk to communities and landscape values from wildfire is low.	5.2.1.1 To assist the GoA in reducing wildfire threat potential by reducing fire behavior, fire occurrence, threats to values at risk and enhancing fire suppression capability	a) Percentage reduction in "Summer" Fire Behavior Potential area (ha) within the FireSmart Community Zone. b) Percentage reduction in "Summer" Fire Behavior 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 Behavior Potential rating within FireSmart Community Zones. b) Reduce the area (ha) in the high, very high and extreme "Summer" Fire Behavior Potential rating across the DFA.
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	a) Extent of various uses. b) Recreational trail integration. c) Forest aesthetics.	a) Annual opportunity for public input on harvest plans. b) Integrate recreational trails as indicated in the Timber Harvest Planning and Operating Ground Rules. c) Integrate forest aesthetics as indicated in the Timber Harvest Planning and Operating Ground Rules and Visual Quality Strategy.

ID	Value	Objective	Indicator	Target
30	5.2.3 Forest Productivity	5.2.3.1 Maintain Long Run Sustained Yield Average (LRSYA)	Regenerated stand yield compared to natural stand yield.	No net decrease from the natural stand productivity.
CCFM Criterion 6. Accepting society's responsibility for sustainable development				
CSA SFM Element 6.1 Indigenous and treaty rights and Indigenous forest values				
31	6.1.1 Compliance with government regulations and policies	6.1.1.1 Implement Indigenous Consultation Plan	Meet Alberta's current expectations for Indigenous consultation.	Consult at the community level with designated representatives of affected Indigenous communities.
CCFM Criterion 6. Accepting society's responsibility for sustainable development				
CSA SFM Element 6.2 Public participation and information for decision-making				
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.	Implementation of Spray Lake Sawmills' (SLS) Public Participation Program.
Footnotes: [2] 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 includes roads, pipelines, powerlines, and rivers, but does not include seismic lines. [3] Old Interior Forest: Old interior forest patches are defined as any patch greater than 120 ha that is composed of stands greater than 120 years old, using a 15m adjacency distance. [4] Protected Area Representation GAP Analysis - Spray Lake Sawmills FMA/B9 Areas - July, 2013 [5] 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. [6] Wild: genetic materials of native species originating from natural regeneration (FGRMS).				