



Forest Management Plan for the C5 Forest Management Unit Milestone Information Package Number 2

Crowsnest Forest Products (CFP), a subsidiary of West Fraser Mills Ltd. (West Fraser)¹, is in the process of completing the 2026-2036 C5 Forest Management Plan (FMP). The new C5 Forest Management Plan will replace the 2006-2026 FMP and will contain specifics for when, where, and how timber will be managed to balance social, economic, and environmental objectives for the Defined Forest Area (DFA) (see Figure 2).

The FMP has been 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). 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. The FMP area is located within the South Saskatchewan Land-Use Framework Region and aligns with the South Saskatchewan Regional Plan (SSRP) and the Livingstone Porcupine Hills Land Footprint Management Plan (LPH-LFMP). Figure 1 illustrates the forest management planning hierarchy, including the operational plans and Timber Harvest Planning and Operating Ground Rules required by the Alberta government.

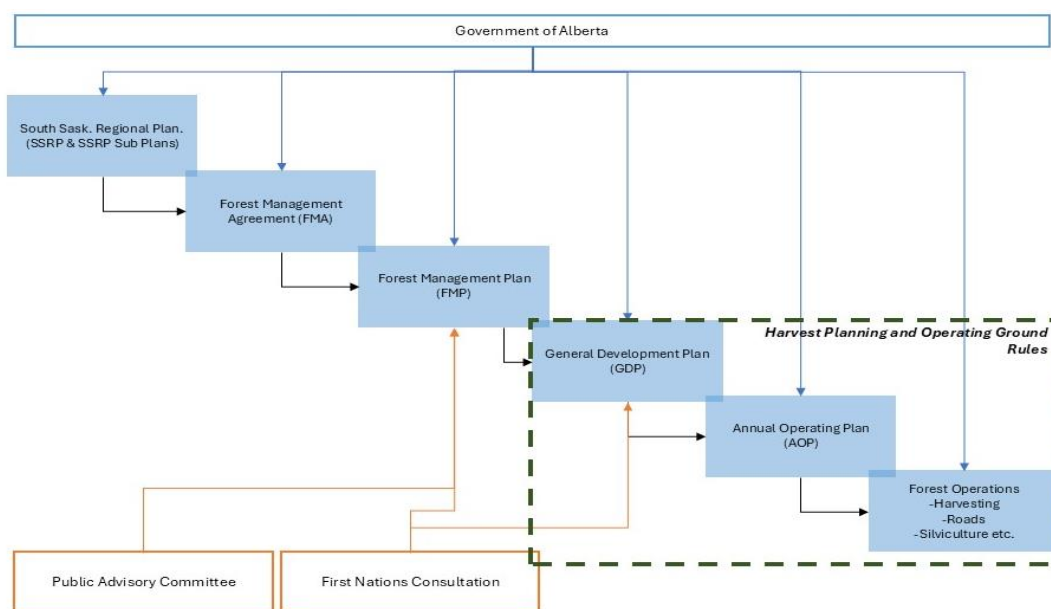


Figure 1. Forest Management Planning Hierarchy

Completing a forest management plan, from data collection and analysis to mapping and consultation with the public and First Nations, typically takes between two and five years. After the FMP is submitted,

¹ West Fraser acquired Spray Lake Sawmills and its subsidiary Crowsnest Forest Products Ltd. in November 2023.



it can take between five months to over a year to be reviewed, revised, and approved by the Government of Alberta.

The development of a 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. This information package provides an overview of key elements in the draft FMP, including the Values, Objectives, Indicators, and Targets (VOITs), the draft Spatial Harvest Sequence (SHS), and the Preferred Forest Management Scenario (PFMS). Once finalized and approved, the SHS and VOITs will be used to guide harvesting activities and track VOIT performance measures over the next ten years.

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). CFP is a forest tenure holder in the province of Alberta. CFP's 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 the 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. An FMA 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). Some key federal and provincial legislation Alberta forestry operations are also subject to are listed on Page 28.

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 or 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 main objective of a Forest Management Plan is to manage forest vegetation while minimizing the potential impact of forest operations on other values and uses. CFP's FMP will be a twenty-year plan, which is renewed every ten years, and guides operations and activities for the duration.

VOITs Development

Values, Objectives, Indicators, and Targets (VOITs) form the basis of the FMP performance monitoring program. The VOITs establish linkages between social, economic and ecological values identified for the FMP area and their application in forest management activities. Values and objectives represent broad



landscape-level items, with indicators and targets being specific variables to monitor and measure. 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.

The VOITs development process was initiated by CFP in November 2022. The GoA provided an updated list of draft VOITs in March 2023 that incorporated the SSRP and the LPH-LFMP. With government approval, the FMA holder can modify or add to these VOITs to address values and objectives specific to their operating area. Beginning in the fall of 2022, CFP hosted a FMP/VOITs open house and a stakeholder Public Advisory Committee meeting to seek input from the public and stakeholders. The open house and Public Advisory Committee Meeting introduced the planning hierarchy, the FMP process, and values and objectives development. Input from First Nation communities was also sought at the same time.

This input has been thoughtfully considered and will be addressed in the final FMP document or the VOITs. The VOITs were developed to align with higher level regional and sub-regional plans such as the South Saskatchewan Regional Plan and the Livingstone Porcupine Hills -Land Footprint Management Plan.

CFP is now initiating the final review process for the 2025 FMP VOITs, which incorporates much of the input we have received. Specific additional areas of concern, will also be thoughtfully considered and may also be incorporated into the final plan. Concerns related to operational practices (silvicultural strategies, access plans, harvest operations, etc.) will also be considered and could contribute to strategies for operational implementation of the FMP. Table 1 provides the current VOITs for inclusion in the 2025 FMP.

FMP Progress to Date

- Completed Milestone 1 for the First Nations and Public Consultation Plans (VOITs) and are now consulting on Milestone 2 (the spatial harvest Sequence maps (SHS) and the aligned VOITs).
- Approval of the FMP Public Participation Program, available on our website (<https://www.spraylakesawmills.com/woodlands/forest-management-planning/>).
- Completed a FMP/VOIT open house to gather stakeholder and public input.
- 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.
- Drafted a 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 the preliminary non-timber assessment (NTA) analysis. This is how harvest levels are aligned with VOIT trade-offs.
- Drafted the preliminary spatial harvest sequence (SHS). The SHS areas indicate where harvesting is likely to occur over the next 20 years (see pages 8).
- 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 12 Planning Development Team (PDT) Meetings with the subject matter experts at the government of Alberta.

Milestone 2 Consultation Items

- Maps outlining a preliminary 20-year SHS (see page 7). The SHS are the areas indicated by decade on the map to be harvested over the next twenty years.
- Identification of how the VOITs are linked to the 20-year SHS (see page 9).
 - VOITs currently having defined targets directly linked to the 20-year preliminary SHS include:
 - VOIT 10
 - The target is for 3% of the Lodgepole pine/other non-Douglas fir forest and 15-20% of the Douglas fir forest to be retained within harvested stands. At the end of the 10 year FMP term, the amount of retention should be greater than 5.25%, based on a weighted average of predicted area harvest, which is very close to the recommended 5% level.
 - VOITs 14b (Barred owl), 14c (American marten) and 14d (Song Birds) have relative abundance percents within targeted tolerances for the 20 year SHS.
 - VOIT 14 c & d: Varied Thrush & Marten drop below the 15% threshold at years 100 and year 50 respectively, but do not show a more than 20% change. Additional operational strategies will be part of the FMP to address the concern.
 - Ovenbird predictions are based on deciduous stands age class levels which is not a tree species CFPs has the rights to harvest in this FMA.
 - Projected preliminary 20-year VOIT target:
 - VOIT 1: Maintain biodiversity by retaining the full range of cover types and seral stages.
 - Extensive studies have been undertaken to improve our understanding of the historic landscape patterns and natural range of variability at both the scale of the defined forest area



(DFA) and the larger natural subregion scale. This includes work completed by fRI research through their Healthy Landscapes Program and LandWeb simulation modeling (see additional useful links page below). This research is being used to inform the cover type and seral stage targets for the FMP.

- The old and very old forest levels are maintained for the overall landbase (sometimes referred to as the gross landbase), although the old and very forest levels drop below the predicted natural range of variability (NRV) on the managed landbase (i.e. active landbase).
- VOIT 14a: Viable populations of identified plant and animal species (grizzly bear).
 - Habitat definitions:
 - Primary Habitat – An area of good habitat that attracts bears and has low grizzly bear mortality risk (there is no decrease in primary habitat).
 - Secondary Habitat – An area of moderate habitat that attracts bears and has a low grizzly bear mortality risk (there is no decrease in secondary habitat).
 - Primary Sink habitat – An area of good habitat that attracts bears but has high grizzly bear mortality risk (there is an increase in sink habitat).
 - The grizzly bear model indicates that within the first 10 years of the SHS, primary habitat increases by approximately 7,600 hectares, secondary habitat increases by approximately 3,400 hectares, and primary sink habitat increases by approximately 2,500 hectares.
 - The preliminary grizzly bear model indicates that within the first 20 years of the SHS, primary habitat increases by 10,800 ha, secondary habitat increased by approximately 1,500 hectares, and primary sink habitat increases by approximately 5,700 hectares.
- VOIT 25: Water quantity and quality:
 - Equivalent clear-cut area (ECA) modelling is a coarse filter indicator describing how forest harvesting may impact a watershed. The GoA watershed assessment process utilizes internally delineated watersheds restricted to 10,000 hectares within the ECA model. The watershed assessment is a precautionary and coarse watershed disturbance footprint analysis rather than a reliable tool to predict water yield. The



presumption is that a watershed with greater than 30% ECA could exceed a 15% increase in water yield.

- Two watersheds are currently at over 50% ECA disturbance. The outage is due to disturbance impacts of the Lost Creek wildfire in 2003. By year 20 of the SHS, both of these watersheds recover to < 30% ECA.
- The 20-year SHS is designed to distribute harvest across the landscape and avoid exceeding 30% disturbance in any ECA watersheds. No ECA watersheds are forecasted to exceed 30% disturbance due to forest harvesting within the 20-year SHS.

Future Consultation Opportunities

A VOIT/SHS open house will be held in the winter of 2025. A final draft FMP will be publicly available for comment on our website during the summer of 2025.

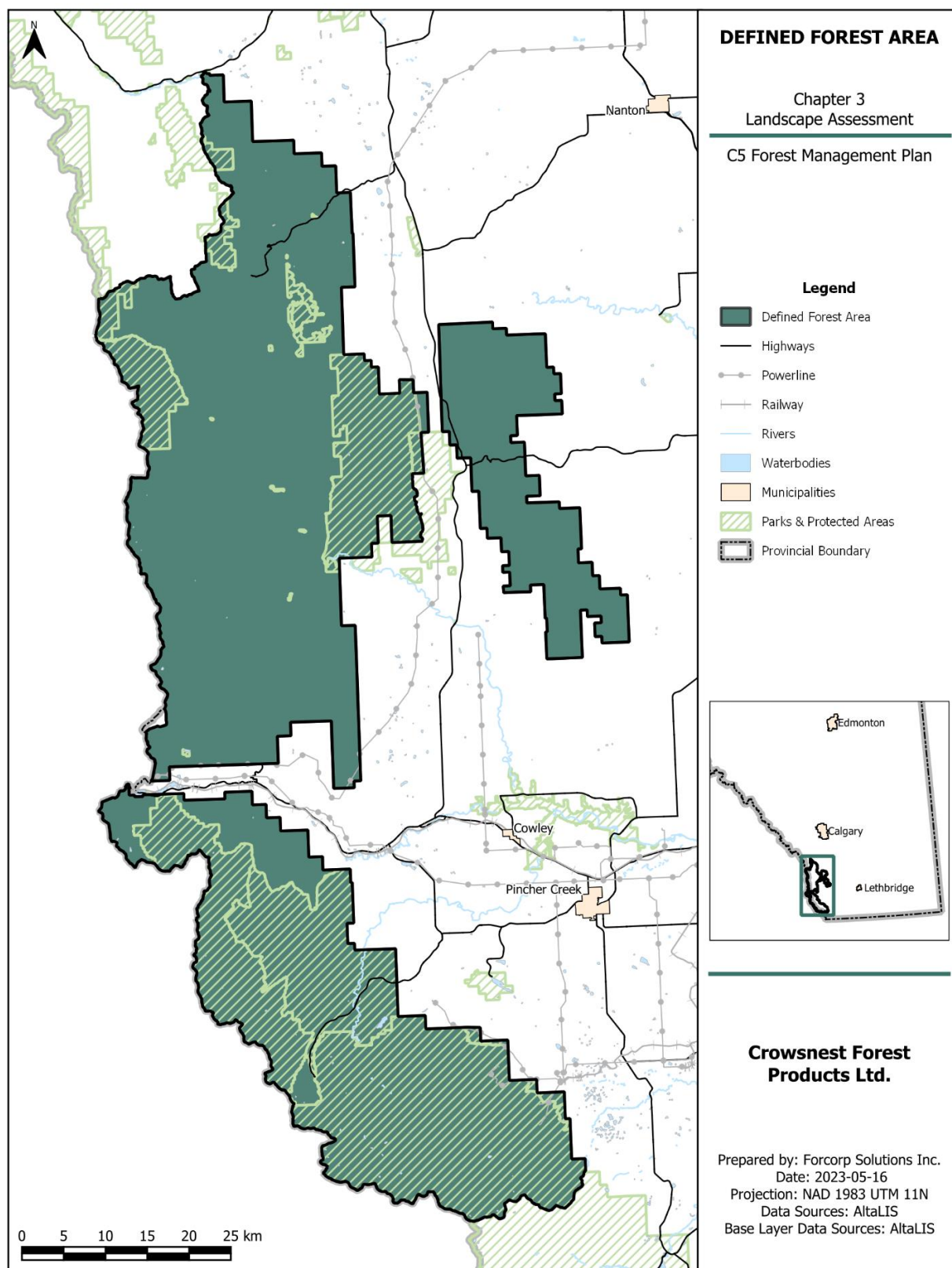


Figure 2. Crowsnest Forest Product's Defined Forest Area (DFA).

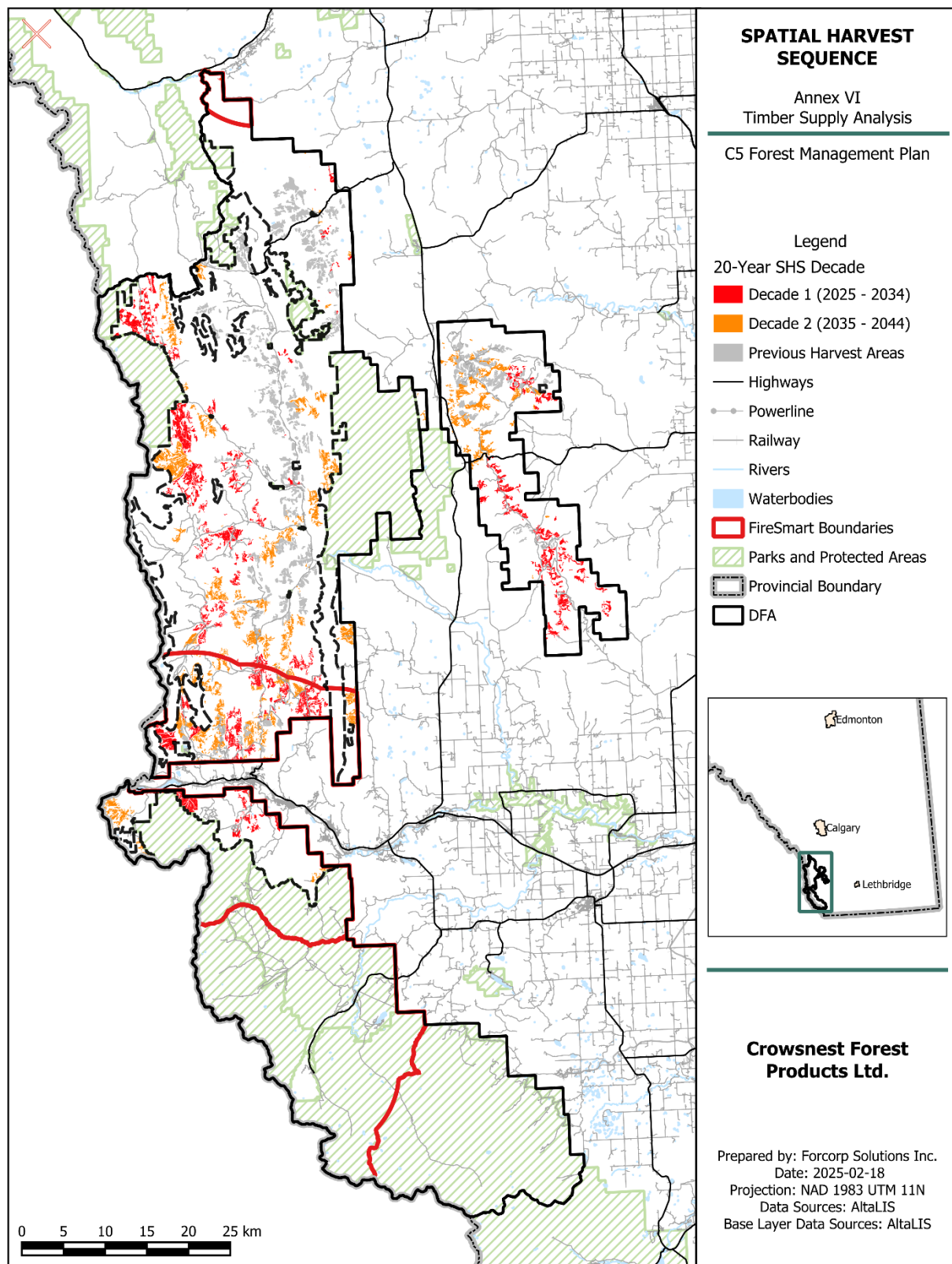


Figure 3. Preliminary Spatial Harvest Sequence for C5, by decade.



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	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 ³ Creation of resilient, healthy forests within a natural range of variation	Area of old, mature, and young forest in the Forest Management Agreement (FMA) area by cover class ² .	Over the 200 year planning horizon: a) Gross landbase: greater than 25% old forest, greater than 31% mature plus old forest, less than 13% young forest; and b) Net landbase: greater than 13% old forest, greater than 23% mature plus old forest, less than 20% 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 Alberta Land Stewardship Act (ALSA), South Saskatchewan Regional Plan (SSRP) and Livingstone-Porcupine Hills Land Footprint Management Plan (LPH-LFMP)	Minimize variance by developing and implementing an operationalized Spatial Harvest Sequence (SHS)	Regular updates to inventory Planning and submission of a General Development Plan (GDP), adherence to SHS, track and report variance	FMP: Tables of indicators (values and targets) at 0, 10, 50, 100 and 200 years. Maps of indicators at 0, 10 and 50 years Performance: 5 year - Stewardship Report 10 year - Stewardship Report [Compare time 0 of 2025 FMP to Classified Landbase (CLB) of new FMP]	Area (ha) of old and mature forests in the FMA by cover class shall be between 90% and 100% of target areas. Area of young forest in the FMA by cover class shall not exceed 110% of target area	Adjust strategies in subsequent Forest Management Plan (FMP)
2	1.1.1 Landscape scale biodiversity	1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	a) Range of patch ³ sizes for forest that is 20 years of age and less for the FMA	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.	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 ALSA, SSRP, LPH-LFMP	Spatial and temporal harvest planning. Patch size distribution targets are set for forest patches less than 20 years old Minimize variance by developing and implementing an operationalized SHS	Regular updates to forest inventory Planning and submission of a GDP, adherence to SHS, track and report variance	FMP: 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) Performance: 5 year - Stewardship Report 10 year - Stewardship Report (Compare time 0 of 2025 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



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
3	1.1.1 Landscape scale biodiversity	1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	Area of old interior forest ⁴ in the FMA by cover class.	b) Area of old interior forest will not be less than 10% of PI stands, 30% of SW stands, 16% of FD stands, 2% of MIX stands, 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 ALSA, SSRP, LPH-LFMP	Spatial and temporal harvest planning Minimize variance by developing and implementing an operationalized SHS	Regular updates to forest inventory Planning and submission of a GDP, adherence to SHS, track and report variance	FMP: Maps and Tables of indicator at 0, 10, and 50 years Cover class will be comprised of FMP natural stand yield stratum: Hw, Fd, Mix_PI, MIX_Sx, PI & Sw. Performance: 5 year - Stewardship Report 10 year - Stewardship Report (Compare time 0 of 2025 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	1.1.1 Landscape scale biodiversity	1.1.1.3 Maintain biodiversity by minimizing access	a) Open permanent forestry road (Department Licence of Occupation - DLO) density outside the LPH-LFMP area.	a) Less than 0.00 km/km2	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard ALSA, SSRP, Public Lands Act	Develop a strategy that coordinates access with other resource users, spatial/temporal sequencing of harvest, road construction and reclamation. (SHS and long-term corridor access plan)	Regular updates to forest inventory and Digital Integrated Dispositions (DIDs).	FMP: Table of road density outside LPH-LFMP area at 0 and 10 years. Map of existing and proposed open and closed forestry roads. Report forestry roads and total (all users) roads Performance: Stewardship Reports - table and map of permanent open forestry road densities (km/km2) outside LPH-LFMP area.	A variance not exceeding +/-20% must be achieved	Adjust strategies in subsequent FMP
4-2	1.1.1 Landscape scale biodiversity	1.1.1.3 Maintain biodiversity by minimizing access	b) Open seasonal/temporary forestry road length outside LPH-LFMP area.	a) Less than 18 km for the FMA area outside the LPH -LFMP area	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard, ALSA, SSRP, Forests Act, Alberta Timber Harvest Planning and Operating Ground Rules (OGRs), Spatial Data Directive (SDD)	Road construction, maintenance, and reclamation activities	Road planning OGR	FMP: Table and map of existing open seasonal/temporary forestry roads at time zero. Performance: Stewardship Reports - table open seasonal / temporary forestry roads for each timber year for outside LFH-LFMP.	A variance not exceeding +/-20% must be achieved	Adjust strategies in subsequent AOPs



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
5-1	1.1.1 Landscape scale biodiversity	1.1.1.3a Maintain biodiversity by minimizing access per direction from LPH-LFMP	a) Open motorized access by Footprint Planning Zone	a) Less than 0.04 km/km2 in Zone 2 and less then 0.14 km/km2 in Zone 3	Historical road construction and reclamation data, targets shall be forest sector specific based on guidance from LPH-LFMP	Planning Standard, ALSA, SSRP, LPH-LFMP, Public Lands Act, OGRs, SDD	Road construction, maintenance and reclamation activities Develop a strategy to coordinate access with other resource users, spatial/temporal sequencing of harvest, road construction and reclamation (SHS and long-term corridor access plan)	Road plan (Operating Ground Rules (OGR)) Government of Alberta Decision Support Tool	FMP: Current open motorized access density by zone (open forestry Department Licence of Occupation (DLOs)). Performance: Stewardship Reports Road density and km by zone per year for Open Motorized Access (open forestry DLOs).	None	Removal of open motorized access when appropriate Adjust strategies in subsequent FMPs



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
5-2	1.1.1 Landscape scale biodiversity	1.1.1.3a Maintain biodiversity by minimizing access per direction from LPH-LFMP	b) Restricted motorized access by Footprint Planning Zone	b) Less 0.09 km/km ² in Zone 2 & 3	Historical road construction and reclamation data, targets shall be forest sector specific based on guidance from LPH-LFMP	Planning Standard, ALSA, SSRP, LPH-LFMP, Public Lands Act, OGRs, SDD	Road construction, maintenance and reclamation activities Government of Alberta Decision Support Tool Develop a strategy to coordinate access with other resource users, spatial/temporal sequencing of harvest, road construction and reclamation (SHS and long-term corridor access plan) All temporary forestry roads will be managed as Restricted Motorized Access per LFH-LFMP,	Regular updates to forest inventory Government of Alberta Decision Support Tool	FMP: Current restricted motorized access density by zone. (Forestry Access roads and DLOs) Performance: Stewardship Reports Restricted motorized access density by zone per year	None	Adjust timing of road reclamation program Adjust strategies in subsequent FMPs
5-3	1.1.1 Landscape scale biodiversity	1.1.1.3a Maintain biodiversity by minimizing access per direction from LPH-LFMP	c) Near stream motorized access disturbance limit (within 100 m of a stream on erodible soils	c) <0.01 km/km ² in each analysis unit	Historical road construction and reclamation data, targets shall be forest sector specific based on guidance from LPH-LFMP	Planning Standard, ALSA, SSRP, LPH-LFMP, Public Lands Act, OGRs, SDD	Develop a strategy that coordinates access with other resource users, spatial/temporal sequencing of harvest, road construction and reclamation (SHS and long-term corridor access plan)	Regular updates to forest inventory Government of Alberta Decision Support Tool	FMP: Current near stream motorized access density by analysis unit (Forestry Access roads and DLOs) Performance: Stewardship Reports Near stream motorized density by analysis unit per year	None	Adjust timing of road reclamation program Adjust strategies in subsequent FMPs.



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
6	1.1.1 Landscape scale biodiversity	1.1.1.4 Maintain plant communities uncommon in FMA or province	Area or occurrence of each uncommon plant community within FMA	Conserve uncommon plant communities for 100% of known encountered occurrences.	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 Apply operational procedures	Annual ACIMS database updates, regular updates to inventory.	FMP: Table with descriptive list and targets. Map(s) displaying known locations of uncommon plant communities. Performance: Stewardship Reports - Summary of action taken in all areas where uncommon plant communities have been identified.	At the end of the 10-year FMP term the target is achieved	Adjust strategies in subsequent AOPs
7	1.1.1 Landscape scale biodiversity	1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	a) 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".	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, General Development Plan (GDP).	FMP: Table and map of wildfire events within the last 10 years showing area (ha) and proportion (%) of salvaged and unsalvaged Performance: Stewardship Reports: Table and map of fire disturbance with percent salvaged. Table and map show total burn area, portions salvaged by burn severity class, and the unburned green islands kept as retention.	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs
8	1.1.1 Landscape scale biodiversity	1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	b) Area of unsalvaged blowdown	In areas of significant blowdown (>= 100 ha) greater than 10% will be left unsalvaged	Targets are to be based on sound science, ecological considerations and disturbance regimes	Planning Standard	Salvage planning	Inventory updates, GDP.	FMP: Table and map of blowdown event within the last 10 years showing area (ha) and proportion (%) of salvaged and unsalvaged. Performance: Stewardship Reports – table and map of blowdown disturbance and percent unsalvaged and salvaged for events greater than 100 ha in the FMA.	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
9	1.1.1 Landscape scale biodiversity	1.1.1.6 Retain ecological values and functions associated with riparian zones	Protection of aquatic and riparian areas	Consistent with OGRs	OGRs	Federal Fisheries Act, Timber Management Regulation (TMR), Forests Act, Grazing and Timber Integration Manual, ALSA, SSRP	Planning and operations, Timber Supply Analysis (TSA), OGRs	FOMP reports, Company monitoring/audits, tracking of OGR deviation requests, and non-standard submissions	Performance: Stewardship Reports Number of FOMP variances related to specific OGRs Number of Company self-reports Number of OGR deviations requested under applicable OGRs	No variance	Demonstrate that aquatic and riparian ecosystem objectives are being met through an effective monitoring program based on aquatic and riparian function in areas of concern.
10	1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	% area of residual structure (both living and dead), within a harvest area, as outlined in CFPs structure retention strategy by FMA	3% of the Lodgepole pine/other non-Douglas fir forest and; 15-20% of the Douglas fir forest. Structure retention is by area, to be within the contributing landbase, internal to each harvest area (individual openings), and representative of the pre-harvest stand composition. Note: A wide range in variability in harvest area level retention within the FMA 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), previous FMP structure retention results	Occupational Health and Safety Act, Forest and Prairie Protection Act Planning Standard, ALSA, SSRP, LPH-LFMP, OGRs	Implement CFP structure retention strategy and OGRs	Organization reports, cutover photography, air photo interpretation, ground surveys, post-harvest assessments	FMP: None Performance: Stewardship Reports - Table of the percent of structure retention by year for the FMA.	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent FMP.
11	1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	b) Percentage of harvested area within the FMA with downed woody debris ⁵ equivalent to preharvest conditions	b) 75% of harvest areas having downed woody debris retained on site	Recording utilization of downed woody debris post-harvest.	Planning Standard ALSA and SSRP	Organization developed standards	Organization developed during FMP planning	FMP: None Performance: Stewardship Reports - table showing percent of harvest areas by year that have not received treatments that reduces downed woody debris (e.g. brush raking and prescribed burns)	None	Adjust strategies in subsequent FMP.



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
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) by FMA	Strategies to maintain consistent with provincial guidelines / OGRs	Sensitive sites identified through local knowledge, public consultation, Indigenous consultation, ACIMS, ABMI, GDPs, FWMIS, OGRs	Planning Standard	Organization developed standards for sensitive site protection.	Organization reports, air photo interpretation, ground surveys	FMP: None Performance: Stewardship Reports - summary of identified sites and action taken.	None	Adjust strategies in subsequent FMPs
13	1.1.2 Local/stand scale biodiversity	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 OGRs	a) Permanent forestry watercourse crossing designs meet standards of the Code of Practice for Watercourse Crossings b) Temporary forestry watercourse crossings meet standards in the OGRs	a) Code of Practice for Watercourse Crossings b) OGRs	a) Water Act, Water (Ministerial Regulation) and Code of Practice for Watercourse Crossings b) Forests Act, TMR and OGRs	Road and watercourse planning, construction, monitoring, maintenance and reclamation activities	Watercourse Crossing Management Directive OGRs Company watercourse crossing monitoring program	FMP: None Performance: Stewardship Reports Report on all company watercourse crossing monitoring results Number of FOMP variances related to relevant OGRs Number of Company self-reports related to relevant OGRs	None	Based on stewardship reporting results, a causal factor review and the frequency and severity of reported incidences a third-party review of watercourse crossing monitoring programs and operations standards may be required



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	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 (1 May 2023) by FMA; b) Percent change in the Barred owl potential breeding pairs and Resource Selection Function (RSF) value from (1 May 2023) by FMA; c) Percent change in American marten habitat suitability index from (1 May 2023) by FMA; and d) Percent change in relative abundance value of three songbird species (Brown Creeper, Ovenbird and Varied Thrush) from May 1, 2023 by FMA; e) Maintain identified Whitebark and Limber Pine trees, saplings, and seedlings.	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. 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, research/restoration and plus tree sites.	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. For Whitebark and Limber pine, use AVI in combination with company and GoA long term monitoring installations, research /restoration and plus trees sites data. Consult with WPEFC for most current spatial data identifying presence and absence of Whitebark and Limber Pine trees, saplings, and seedlings .	Recovery plans for species at risk, Federal Species at Risk Act	Harvesting plans, road construction, OGR, planning and implementation, adherence to provincial wildlife guidelines. Minimize variance by developing and implementing an operationalized SHS. For Whitebark and Limber pine, ensure protection of trees, saplings, and seedlings through careful operational planning of roads and harvest areas. Maintain consistency with current approved Alberta Whitebark and Limber Pine Recovery Plan and best management practices. Operational guidance on Pa/Pf content from subjective deletions process in classified landbase. Collaboration with Whitebark Pine Ecosystem Foundation of Canada (WPEFC) for support, mitigation and expertise as needed. Clark's nutcracker. Modelling	Updates to vegetation inventory and habitat modelling. Planning and submission of a GDP, adherence to SHS, track and report variance.	FMP: 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. e) Map of Whitebark and Limber Pine distribution (contributing/non-contributing), long term monitoring installations, research/restoration and plus tree sites. Performance: Items a-d 5 year - Stewardship Report 10 year - Stewardship Report Compare time 0 of previous FMP to CLB of new FMP) Item e – 5 and 10 year Stewardship Reports Number of Whitebark and Limber pine trees, saplings and seedlings that have been damaged and/or destroyed.	At the end of the 10-year FMP term the target is achieved or exceeded.	Adjust strategies in subsequent FMP.



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
14-2	5.2.1 Viable populations of identified plant and animal species	To assist with the recovery of native trout species that are federally listed as species at risk under the Species at Risk Act.	a) ECA in bull and Westslope cutthroat trout watersheds b) Roads in Westslope cutthroat trout and bull trout watersheds i. Road density ii. Stream crossings c) Habitat Conservation Strategy	a) Target ECA in trout watersheds is <30%. If ECA is >30%, alter timber harvest scenario with strategic mitigations until ECA is <30%. If existing disturbance, at year 0, already exceeds 30%, then ECA values must demonstrate a downwards trend or will not exceed 30% ECA in modelled years 0-20. b) Report on all permanent and temporary forestry road densities, in bull trout and Westslope cutthroat trout watersheds (HUC8) to limit access. Report on number of crossings in all watersheds (HUC8) and in critical habitat to understand cumulative footprint. c) Develop Habitat Conservation Strategy for native trout species, including BMPs, operational mitigations, and commitments to fish recovery.	ECA model provided by Government of Alberta. Internal and other forestry operators data (remote sensing, planned blocks, site assessments, etc). Government data for HUC watersheds and respective species Critical Habitat. Literature review, recovery plans.	Species at Risk Act including Bull Trout Federal Recovery Strategy, Recovery Strategy and Action Plan for the Westslope Cutthroat Trout Alberta Population, Critical Habitat Orders Fisheries Act Alberta Wildlife Act and species recovery plans, OGRs	- ECA modelling - Harvesting plans, road construction, OGR, planning and implementation - Adherence to provincial wildlife guidelines - Adhere to SHS - Adhere to Habitat Conservation Strategy	Tracking ECA's, road densities, and crossings. Progress on commitments in Habitat Conservation Strategy.	FMP: None. Performance: Stewardship Reports a) Tables showing the current ECA in bull trout and Westslope cutthroat trout watersheds. b) Table of current road densities for permanent, and temporary forestry roads (open and restricted) in bull trout and Westslope cutthroat trout watersheds. Tables of number of crossings built in critical habitat each year. c) Report on progress of commitments in Habitat Conservation Strategies in Stewardship Reports	None	Adjust strategy as required
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 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 forth in FGRMS	Timber Management Regulation (TMR) 144.2(1), Requirements to meet this TMR are provided by Alberta Forest Genetic Resource Management and Conservation Standards (FGRMS).	GCP, FGRMS and GOA/Industry Tree Improvement Cooperatives. Identified conservation areas are designated by a protective disposition in coordination between GOA and the Company	Stewardship Reporting and FGRMS mandatory reports	FMP: 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. Performance: Stewardship Reports - report progress towards target.	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 requirement and in subsequent FMP.



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16	1.3.1 Genetic integrity of natural tree populations	1.3.1.2 Retain wild forest genetic resources through <i>ex situ</i> conservation	Where applicable, number or amount of genetic materials conserved <i>ex situ</i> as field trials, experiments, clonal banks, arboretum, and long-term seed storage	Wild forest genetic resources through <i>ex situ</i> conservation are retained as per requirements set forth in FGRMS and as guided by the <i>Ex situ</i> Conservation Plan for Forest Genetic Resources in Alberta (<i>Ex situ</i> CP) Targets to be determined in accordance with FGRMS	Gaps and needs as identified in <i>Ex situ</i> CP and requirements set forth in FGRMS	TMR 144.2(1). Requirements to meet this TMR are provided by FGRMS	FGRMS and GoA/Industry Tree Genetics Cooperatives.	Needs for <i>ex situ</i> gene conservation will be continuously identified as provincial forest management priorities and environmental challenges arise	FMP: If applicable, table and map showing number of provenances, genotypes and seedlots and their origin within the DFA Performance: Stewardship Reports not applicable until a controlled parentage program becomes active.	Where <i>ex situ</i> 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
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	Link to consultation objective in Planning Standard or other existing consultation processes	Planning Standard	Management planning and operational planning.	Documentation of consultation processes	FMP: None. Performance: Stewardship Reports - summary of consultation with relevant protected area agencies.	None	Adjust strategies in subsequent FMP



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
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 Government of Alberta (GoA)	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	FMP: None. Performance: ARIS - updates to Alberta Regeneration Information System (ARIS) tables. Stewardship Reports - tables summarizing indicators a, b, and c	None	Adjust silviculture strategies
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 MAIs and D MAIs for openings surveyed in a five year quadrant, as reported to ARIS	100% of target	Direction from GoA	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	FMP: none. Performance: ARIS - updates to ARIS tables. Stewardship Reports - summarize the difference between target and actual C and D MAIs for each opening then sum the differences across all openings in the five-year quadrant	Meet or exceed the target C and D MAI for the FMA	Adjust silviculture strategies



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
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 FMA.	Forest inventory and land use data	Planning Standard	Maintain current forest cover inventory and land use updates. Promote the minimization of non-forested impacts to the landbase.	Inventory and land use systems	FMP: none. Performance: Stewardship Reports - number of dispositions and area of disposition withdrawn from the landbase, number of dispositions returned, and area of dispositions returned to the landbase, net change to landbase area.	Report actual	Adjust net landbase projections in next TSA
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.	GoA and Company Forest health surveys, inventory updates, fire reporting.	Planning Standard, Alberta Forest Health Strategy and Shared Roles and Responsibilities between GoA and the Forest Industry	Maintain up-to-date information	GoA annual forest health surveys and Company detections	FMP: None. Performance: Stewardship Reports maps showing areas impacted by fire, insects, windthrow and other natural events and any subsequent treatment	Report actuals	Event specific
22	2.1.3 Control invasive species	2.1.3.1 Control invasive plants	Invasive plant program	Implement the CFP invasive plant program	Monitoring, controlling and reporting on infestations	Weed Management in Forestry Operations Directive 2001-06	Follow CFP Invasive Plant Program	Adherence to OGRs, Field inventories	FMP: None Performance: Stewardship Reports Invasive plant inspections summarized in Stewardship report	Report actuals	Continually Improve invasive plant program
23	3.1.1 Soil productivity	3.1.1.1 Minimize impacts of roads, landings and bared areas in forest operations	Compliance with OGRs directing both decompaction where necessary as well as compliance with the FMP Reforestation Strategy Table.	Complete compliance with OGRs	Direction from GoA	OGRs and Soils Guidelines	Effective planning and supervision of operations	Field inspection reports and audits	FMP: None Performance: Summary of total area of roads, landings and bared areas that were not reforested with a rationale as to why.	None	Immediate remedial action to correct



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
24		3.1.1.2 Minimize incidence of soil erosion and slumping	Incidence of soil erosion and slumping	Complete compliance with OGRs	Direction from GoA OGRs related to soils and erosion control	OGRs and other guidelines for soil erosion and sediment control	Effective planning and supervision of operations and adherence to relevant OGRs	Field inspection reports and audits	Performance: Stewardship Report: Report on all company monitoring results Number of FOMP variances related to relevant OGRs Number of Company self-reports related to relevant OGRs	None	Immediate remedial action to correct and review of causal factors associated with erosion or slumping events.
25	3.2.1 Water quantity	3.2.1.1 Limit impact of timber harvesting on water yield	Forecast impact of timber harvesting (over 200 years) on water yield.	a) Snow sensitive zones will have ECA's multiplied by 1.5 b) Mean annual water yield increase < = 15% or Equivalent clearcut area (ECA) < = 30% in approved watersheds	a) Identifying high runoff areas during peak streamflow on the Eastern Slopes of the southern Canadian Rocky Mountains ⁷ b) ECA and hydrological modelling using approved watersheds Watershed sensitive values assessment Direction from Alberta	Planning Standard, ALSA, SSRP and LPH-LFMP	Minimize variance by developing and implementing an operationalized SHS Incorporate knowledge from hydrological modelling and watershed research Direction from Alberta	SHS area variance as per OGRs.	FMP: Table showing ECA at 0, 10, 50, 100 and 200 years and maps showing ECA at year 0, 10 and 50 years Performance: 5 year - Stewardship Report 5 year – If SHS variance exceeds 20% in compartments that fall within a watershed, ECA must be remodelled. 10 year - Stewardship Report Table comparing ECA values at year 0 from 2025 FMP to year 10 of new FMP by approved watershed	< 20 percent SHS variance	5 year - adjust timing and harvest of remaining SHS to allow for hydrologic recovery of watersheds to meet targets (ECA < = 30%) 10 year - adjust ECA targets to allow for hydrologic recovery of watersheds to meet targets (ECA < = 30%)



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
26	3.2.2 Effective riparian habitats	3.2.2.1 Minimize impact of operations in riparian areas	Aquatic and riparian management areas maintained as outlined in OGRs	Compliance with relevant OGR sections pertaining to aquatic and riparian protection	Direction from GoA OGRs	Federal Fisheries Act, TMR, Forests Act, ALSA, SSRP, LPH-LFMP, OGRs	Effective planning and supervision of operations and adherence to relevant OGRs.	Field inspection reports and GoA FOMP reporting. Company monitoring/audits, Tracking of OGR deviation requests, and non-standard submissions	FMP: None. Performance: Stewardship Reports - Number of FOMP variances related to relevant OGRs Number of Company self-reports for relevant OGR contraventions Number of relevant OGR deviation requests in operational plans	None	Response will be determined by the frequency and severity of reported incidence at the discretion of Alberta Demonstrate that aquatic and riparian habitat objectives are being met through an effective monitoring program based on aquatic and riparian function
27	5.1.1 Sustainable timber supplies	5.1.1.1 Establish appropriate Annual Allowable Cuts (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	Performance: 5 year - Stewardship Report 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



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
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) Harvested area in Wildfire Risk Indicator (WRI) classes (Risk Reduction, Continuous Improvement, and Intolerable) (ha) within the CFP FMA Community Zone b) Harvested area in WRI classes (ha) within the CFP FMA Landscape Zone now and over the planning horizon	a) Harvest 30% of the area in WRI classes within the CFP FMA Community Zones over 20 years b) Harvest 10% of the area in WRI classes within the CFP FMA Landscape Zone over 20 years.	Annex 3 Report, data and recommendations provided to FMA Holder FMA Holder assessment of the SHS developed using recommendations from Annex 3 Report	Planning Standard, ALSA, SSRP, LPH-LFMP	SHS, thinning, partial harvest techniques, FireSmart Treatments.	AOPs, Compartment Assessments	FMP: Maps of WRI, Fuel Grid, Historical Wildfires and Natural Subregions. Performance: Stewardship Reports - Report harvest area and percent by year for a) and b) from time zero of the 2025 FMP	Issue specific	Adjust harvest sequence
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	Designated and Provincial trail integration.	Integrate designated and Provincial trails as indicated in the Timber Harvest Planning and Operating Ground Rules.	Consultation and co-operation. Designated and Provincial trails that are identified in the Trails Designation Order.	Planning Standard, OGRs, Trails Act, applicable Ministerial Order	Effective implementation of plans.	Consultation Tracking.	FMP: None Performance: Stewardship Report - report length (m) of trail protected that overlaps harvested areas	Issue specific	Adjust activities
29-2	5.1.2 Scenic values	5.1.1.2 Commercial forestry supports the maintenance of scenic values through integrating recreation and tourism considerations in planning and operations	Minimize impacts to high scenic values in high visual quality areas	The SHS will not include more than 12% of the identified high scenic values in the first two decades.	Consultation in planning process, Visual Quality Assessment,	ALSA, LPH-LFMP, Livingstone-Porcupine Hills Recreation Management Plan	Effective implementation of plans, Visual Quality Strategy.	As-built harvest area boundaries	FMP: Map of areas identified with high scenic value and how much SHS area (ha) is scheduled in the first two decades. Performance: Stewardship reports Report actual percent harvested within the high scenic value areas	20% - variance	Adjust strategies in subsequent FMP



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
29-3	5.2.2 Provide opportunities to derive benefits and participate in use and management	5.2.2.2 Reduce forest encroachment onto grasslands	Forest encroachment onto grasslands is reduced in successional transitional areas	a) Reduce forest encroachment onto grasslands by the inclusion of 125 ha of successional transition areas in each of the first decade of the SHS (79 ha of contributing & 46 ha of non-contributing landbase). b) Slow the transition from grassland to forest in harvested successional transition areas by implementing alternative silviculture strategies.	Consultation in planning process, GoA provided recommendations in the document titled, “Minimizing Forest Encroachment in Successional Transition Areas in the Crowsnest Forest Products Ltd. 2025 Forest Management Plan”. Further refinement and direction from the GoA on eligible successional transition areas to treat encroachment	ALSA, SSRP, LPH-LFMP, AFMPS	Develop the SHS considering successional transition areas to reduce forest encroachment onto grasslands. Include alternative silviculture strategies to reduce forest encroachment onto grasslands such as, but not limited to, partial harvest, pre commercial thinning, leave for natural and/or reduced planting densities.	AOPs, Reforestation Standard of Alberta, Reforestation survey audit results, AVI	FMP: Map showing identified successional transition areas planned for treatment on the contributing (planned SHS) and non-contributing landbases in the first decades. Performance: 5 year – Stewardship Report a) Report harvested successional transition areas in the contributing (actual SHS) and non-contributing landbases (Map and table indicating the harvest areas and what alternative silviculture strategy was implemented in each). 10 year – Stewardship Report a) Report harvested successional transition areas in the contributing (actual SHS) and non-contributing landbases (Map and table indicating the harvest areas and what alternative silviculture strategy was implemented in each), and b) Report outcomes of each alternative silviculture strategy implemented to slow the transition from grassland to forest in successional transition areas.	None	Adjust in subsequent FMP



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
29-4	5.2.2 Provide opportunities to derive benefits and participate in use and management	5.3.3.3 Acknowledgment of Grazing Permit Holder Rights.	Consultation with grazing permit holders with operational planning (GDP).	a) Consultation with grazing permit holders b) Grazing/timber integration stipulations identified in Grazing Timber Agreements (GTA's)	a) Consultation with grazing permit holders b) Stipulations identified in the GTA's	Forest Reserve Act, Forest Act, AFMPS, OGR's, Grazing and Timber Integration Manual	Adherence to GTA stipulations	Adherence to GTA monitoring stipulations	Performance: 5 year – Stewardship Report a) Report number of completed GTA's. 10 year – Stewardship Report a) Report number of completed GTA's	None	Consultation with grazing permit holders make Adjust in subsequent FMP
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	FMP TSA	Planning Standard	Effective implementation of plans	Future FMP RSA (MAI).	FMP: TSA Performance: 5 year - Stewardship Report 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
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	Perform adequate consultation at the community level with designated representatives of affected Indigenous communities	GoA Indigenous Consultation and Policy Guidelines	Planning Standard, GoA Indigenous Consultation Policy and Guidelines	Effective implementation of Indigenous Consultation Process	GoA FMP and GDP consultation adequacy letters CFP Indigenous communication database	FMP: Summary of input provided during Indigenous consultation, how it was incorporated into the FMP and if it wasn't, provide an explanation why. Performance: Stewardship Reports Summary of Indigenous consultation with input and responses during FMP implementation.	None	Adjust activities



VOIT ID	Value	Objective	Indicator	Target	Means to Identify Target	Legal / Policy Requirements	Means of achieving Objective and Target ¹	Monitoring and Measurement	Reporting	Acceptable Variance	Response
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 Crowsnest Forest Products' (CFP) Public Participation Program. Annual opportunity for public input on harvest plans.	CFP public participation program.	Planning Standard	Effective implementation of Public Participation Process	CFP public communication database.	FMP: Summary of public input, how it was incorporated into the FMP and if it wasn't, provide an explanation why. Performance: Stewardship Reports Update on the revised Terms of Reference for the Public Advisory Committee and the Public Participation Program. Summary of Public Participation Program activities and input from the Public Advisory Committee, public and interest groups into harvest plans	None	Adjust activities

[1] 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.
[2] 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.
[3] 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.
[4] 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 an 8m adjacency distance.
[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).
[7] FRIAA/FRIP report EOI FFI-17-15 (March 2020)

Acronyms:					
AAC - Annual Allowable Cut	ABMI - Alberta Biodiversity Monitoring Institute	AFMPS - Alberta Forest Management Planning Standards	ALSA - Alberta Land Stewardship Act	CFP - Crowsnest Forest Products	
CLB - Classified Landbase	DID - Digital Integrated Dispositions	DLO - Department Licence of Occupation	ECA - Equivalent Clearcut Area	FGRMS - Forest Genetic Resource Management and Conservation Standard	
FMA - Forest Management Agreement	FMP - Forest Management Plan	FOREST - Forest Revenue Scaling and Tenure System	GCP - Gene Conservation Plan	GDP - General Development Plan	
GoA - Government of Alberta	HA - Hectare	HUC - Hydrologic Unit Code	LPH-LFMP - Livingstone Hills Land Footprint Management Plan	MAI - Mean Annual Increment	
OGR - Operating Ground Rules	RSF - Resource Selection Function	SHS - Spatial Harvest Sequence	SSRP - South Saskatchewan Regional Plan	TMR - Timber Management Regulations	
TSA - Timber Supply Analysis	WRI - Wildfire Risk Indicator				



ADDITIONAL USEFUL LINKS

Regional planning in Alberta including the South Saskatchewan Regional Plan

<https://www.alberta.ca/regional-plans-and-recreation.aspx>

C5 Forest Management Plan 2006-2026

<https://open.alberta.ca/publications/0778545458>

Provincial Operating Ground Rules and Addendums

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

FRI Reasearch LandWeb Simulation Modeling

<https://friresearch.ca/project/landweb-simulation-modelling>

ACTS

Provincial - All Provincial acts are available at the King's Printer - <https://www.alberta.ca/alberta-kings-printer>

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 reserves.

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) – 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.

Section 35 of the Constitution Act, 1982 - The duty to consult is a legal obligation for the Canadian government (and the provinces responsible for Crown land) to consult with Indigenous peoples when considering actions that could negatively impact their rights. This duty is derived from the Constitution Act, 1982, and is based on the "Honour of the Crown"

STANDARDS

Alberta Forest Management Planning Standard Version 4.1. – April 2006

The Alberta Forest Management Planning Standard and its annexes, interpretive bulletins, and updates comprise the standard for preparing and implementing Forest Management Plans in Alberta.

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

SSRP AND SUB-PLAN INFORMATION

South Saskatchewan Regional Planning

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

Livingstone Porcupine Hills Land Footprint Management Plan & Recreation Management Plan

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

USEFUL ACRONYMS

AAC	Annual Allowable Cut
ALSA	Alberta Land Stewardship Act
CCFM	Canadian Council of Forest Ministers
CFP	Crowsnest Forest Products
CSA	Canadian Standards Association
DFA	Defined Forest Area
FMA	Forest Management Agreement
FMP	Forest Management Plan
GoA	Government of Alberta
LPH-LFMP	Livingstone-Porcupine Hills Land Footprint Management Plan
NTAs	Non-Timber Assessments
OGRs	Timber Harvest Planning and Operational Ground Rules
PDT	Plan Development Team
PFMS	Preferred Forest Management Scenario
SFM	Sustainable Forest Management
SHS	Spatial Harvest Sequence
SSRP	South Saskatchewan Regional Plan
TSA	Timber Supply Analysis
VOITs	Values, Objectives, Indicators & Targets