

WELCOME

Public Advisory Group Meeting for
Prince Albert Forest Management Agreement Area
October 14, 2020 (9-11 am)

AGENDA

1. Comments

- Meeting Notes or Meeting Brief - August 5, 2020
- PAG Terms of Reference

2. Updates

- Opportunities to engage in development of 2021/22 Operating Plan
- FMP Amendment #2
- Carrier's recent request and approval for using a 12.5 cm sawlog top size

3. Draft FMP 2020 Annual Report (2018-19 Operating Year)



Forest Management Plan 2020 Annual Report

PRINCE ALBERT FMA AREA

General Comments

Indicators from originally approved FMP

Third Party Operators

- Managed by the Forest Service, consultation with Sakaw required, integration where possible
- Included in “Actual Harvest vs HVS”, and “Economic Impact”

Suggested Topics to Highlight

Social	Engagement (22, 25, 29) Incorporating Traditional Knowledge into Planning Process (27) Non-timber Resources & Uses (23) Distribution of the Harvest (24)
Wildlife (Habitat)	Caribou (7c)
Events (Natural Forest Patterns)	Event Size (3) Event Retention (4)
Forest Management Activities	Wood Volumes – Estimated versus Action (13) Wood Volumes – Harvested versus Approved (21)
Economic	Economic Contribution from Forest Industry (28)
Compliance	Soil, Road Reclamation, Watercourse Crossings, Riparian Areas (16-19)
Silviculture	Softwood in Hardwood Stands (5) Species Groups Maintained (6)

Reporting Cycle & Status

	On Track
	To be Determined
	Off Track

#	Indicator Title	Reporting Cycle	Detailed Assessment	Reporting Yr:	Operating Year of Activity									
					2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
1	Age Class Distribution	5 Year	10 Year	Reporting Yr:					2024					2029
2	Old/Very Old Forest	Annual	-	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
3	Harvest Event Size	Annual	10 Year	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
4	Harvest Event Retention	Annual	-	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
5	Softwood in H Types	Annual	5 Year	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
6	Species Groups Maintained	Annual	5 Year	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
7a	Moose Habitat	5 Year	5 Year	Reporting Yr:					2024					2029
7b	Fisher Habitat	5 Year	5 Year	Reporting Yr:					2024					2029
7c	Caribou Habitat	Annual	5 Year	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
8	Planted Seed Sources	Annual	5 Year	Reporting Yr:	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
9	Area Declared FTG	Annual	-	Reporting Yr:	-	-	-	-	-			2027	2028	2029

Social:

Ind 22 Stakeholder/Public Engagement in Forest Management Planning

Tracks engagement for operational and strategic planning

Targets:

- minimum of 2 PAG meetings/yr., one focused on FMP Annual Report.
 - can be dropped at discretion of PAG or there are not enough people attending
- community open houses at 8 locations (Operating Plan development).
 - can be dropped if community declines or no activities occurring in their area within 2 years.

PAG: 2 letters (approval, start of amendment process), 1 meeting

Open Houses: 13 plus 2 additional

Operating Year	# PAG Meetings	Open Houses Held in Targeted Communities
2018-19	1	Y

Social:

Ind 25 Indigenous Communities Review of Operational/Strategic Plans

Purpose - help assess whether Indigenous and treaty rights are respected in planning and implementing forestry activities. (engagement assists with Duty to Consult)

Target - all Indigenous communities whose traditional territory is within the FMA area have an opportunity to review operational and strategic plans annually.

Description of various ways engagement with the 27 communities identified in 2018 occurred:

- Sakaw construct
- reference to information in Indicators 22 (open houses & PAG) and 29 (FMP engagement)
- reach of advertising done
- furblock meetings and map packages
- letter about FMP public review and amendment
- ongoing engagement throughout the year
- highlighted some specific efforts

Social:

Ind 29 Engage & Inform Public, Stakeholders, Indigenous Peoples on FMP Implementation

Targets:

- Engage public, stakeholder, Indigenous people on implementation of the FMP annually
- PAG is provided with FMP Annual Report

Description of:

- FMP discussions at public information sessions
- Letters, advertisements, websites spreading word about the information sessions
- Posters used at information sessions with FMP information

Social - Engagement:

Ind 22 Stakeholder/Public Engagement in Forest Management Planning (FMP, OP)

Ind 25 Indigenous Communities Review of Operational/Strategic Plans

Ind 29 Engage & Inform Public, Stakeholders, Indigenous Peoples on FMP Implementation

Natural Forest Patterns

Ind 27 Incorporating Traditional Knowledge into Planning Process

- Indigenous traditional knowledge - taken to mean knowledge of local resources and the environment (sometimes also referred as traditional ecological knowledge), as opposed to traditional land uses - although the line between tradition knowledge and traditional land uses can sometimes be blurry.
- SK2 Central Range Plan – map of caribou habitat suitability based on Indigenous traditional knowledge
- Three instances of traditional knowledge made available, used when planning and referenced in engagement records for 2018/19 are described

Social: Ind 26 Culturally Significant Indigenous Sites

Tracks that all known culturally significant Indigenous sites are mapped in Sakâw 's GIS system and receive operational consideration while planning forest management activities.

Identification: heritage screening, Indigenous communities, Shareholder (upon discovery)

In 2018-19, 2 major historical sites identified. Protected with no harvest zones, commitments to avoid impacting

Major Culturally Significant Indigenous Sites Identified in 2018-19	Protected (Y/N)
Treaty 6 signing location and Molanosa Culture Camp	Y
Historic Métis communities of Chitek Siding and Molleson	Y

Many other sites identified during the year.

See examples described, how they were identified and how they were protected

Social: Ind 23 Non-Timber Resources and Forest Uses

Tracks maintenance of a spatial dataset for records needed to integrate forest management plans with non-timber resources and uses

Sakaw's GIS contains records of known legal cabins, visually sensitive areas, ski trails, trapper areas and trails, regulated snowmobile and other recreational trails, sensitive wildlife sites, community areas of interest, important areas of non-timber botanical forest products (such as berries and mushrooms), known sites of cultural significance to aboriginal peoples, and other information. The database now contains 91,147 records.

This information is updated on an ongoing basis as new information becomes known. In the 2018-19 operating year, 610 new non-timber features were added to the database:

- 94 of these were area-based features (primarily identified by local people),
- 273 were linear features (all but one were active stakeholder trails), and
- 243 were point-based features (primarily identified by local people).

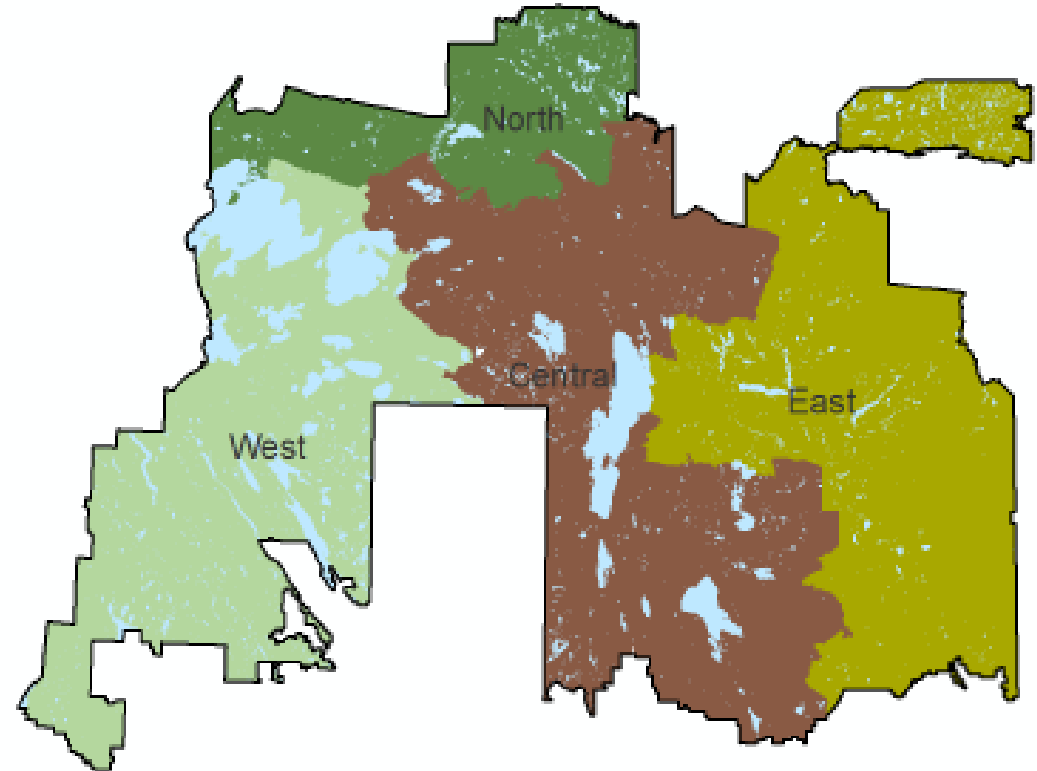
Social

Ind 24 Harvest Distribution by Planning Areas and Species Groupings

16 Targets: 4 Planning Areas, and 4 Species Groupings (S-WS & Other, S-BS or JP, SH, H & HS).
Designed to ensure overcutting does not occur within any geographic zone or stand type.

Tracked annually, assessed on a 5-year cycle.

The harvested area is well below the targets in all cases.



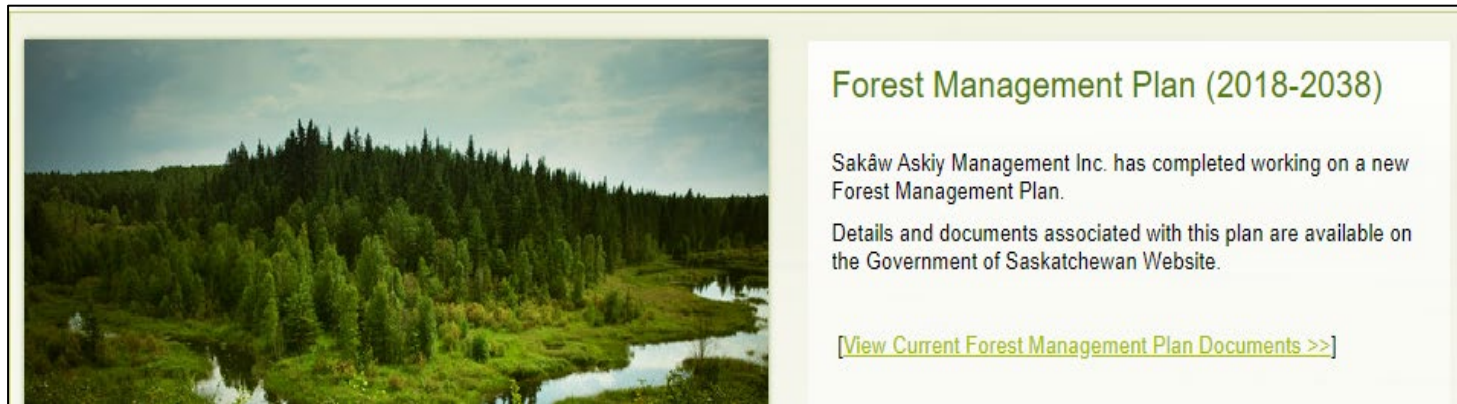
		S-WS	S-BS or JP	SH	H & HS	Total
		Or Other Leading	Leading			
WEST						
2018-2019	Shareholders	465	595	402	3,648	5,111
Cumulative Total		465	595	402	3,648	5,111
5 yr Target		2,000	10,800	2,000	23,200	38,000
Yrs. Harvested		1.2	0.3	1.0	0.8	0.7
CENTRAL						
2018-2019	Shareholders	272	1,705	295	1,220	3,492
Cumulative Total		272	1,705	295	1,220	3,492
5 yr Target		1,000	21,200	1,200	8,400	31,800
Yrs. Harvested		1.4	0.4	1.2	0.7	0.5
NORTH						
2018-2019	Shareholders	4	75	1	3	82
Cumulative Total		4	75	1	3	82
5 yr Target		200	6,700	300	2,000	9,200
Yrs. Harvested		0.10	0.06	0.02	0.01	0
EAST						
2018-2019	Shareholders	116	1,071	74	158	1,419
Cumulative Total		116	1,071	74	158	1,419
5 yr Target		500	14,900	600	4,600	20,600
Yrs. Harvested		1.2	0.4	0.6	0.2	0
Cummulative Total		857	3,446	772	5,029	10,104
Total Target		3,700	53,600	4,100	38,200	99,600
Total Yrs Harvested		1.2	0.3	0.9	0.7	0.5

Social: Ind 30 FMP and Operating Plan made Publicly Available

Target – FMP and Operating Plans will be posted to Sakaw’s website

In 2018-19:

- Approved FMP available from Home Page shortly after it became effective (April 1, 2018). Links to <https://publications.saskatchewan.ca/#/categories/170> where key documents from projects reviewed under the Environmental Assessment Act are filed.



Forest Management Plan (2018-2038)


Sakaw Askiy Management Inc. has completed working on a new Forest Management Plan.

Details and documents associated with this plan are available on the Government of Saskatchewan Website.

[\[View Current Forest Management Plan Documents >>\]](#)

Social : Ind 30 FMP and Operating Plan made Publicly Available

- Operating Plan (April 1, 2018 to March 31, 2019) is also available from Home Page.
- Includes Plan text, approvals & permits
- Interactive webmap of approved harvest areas available, for viewing years 1-5 of current Operating Plan



Operating Plan Web Map:

A web map of the Sakâw Forest Management Area is available at the link below.

The map's contents reflect the 2020 operating plan

- ▶ [View Operating Plan Web Map](#)
- ▶ [View Web Map Tips and Tricks Guide](#)

Habitat: Ind 7c Caribou Habitat

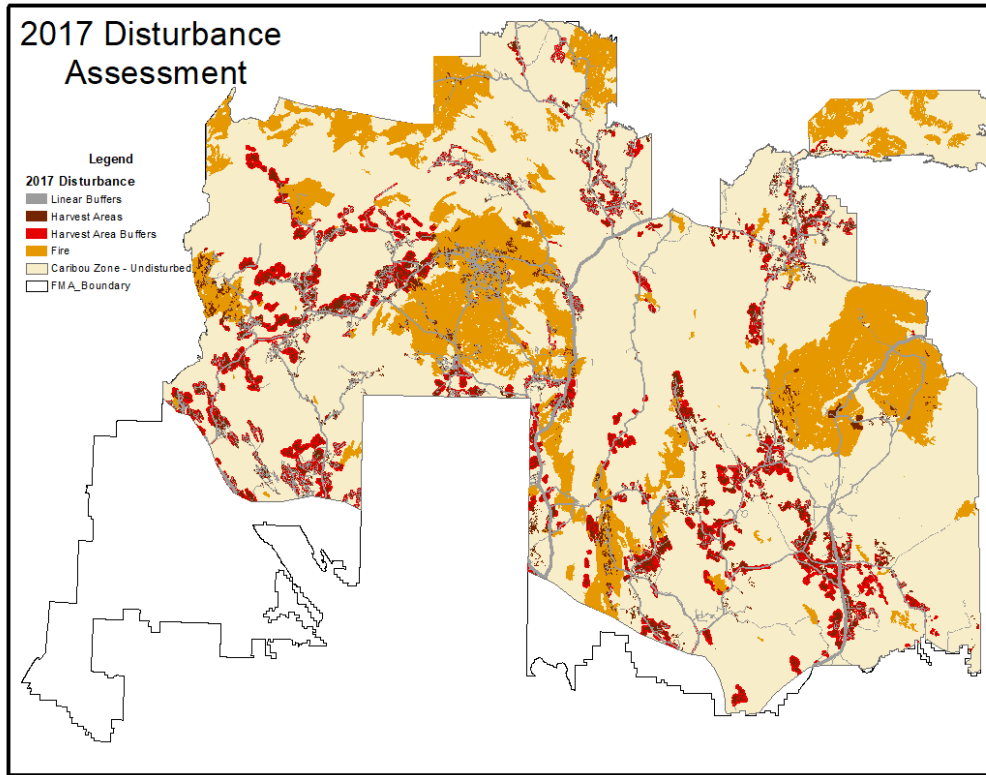
Targets:

- no harvesting in Tier 1
- no harvesting in Tier 2 after 10 years
- $\leq 35\%$ disturbance in SK2 Central portion of FMA area
- disturbance levels can exceed 35% by as much as 5% (total of 40%) during the term of the plan as long as there is a 30-year trend toward recovery to the 35% level.

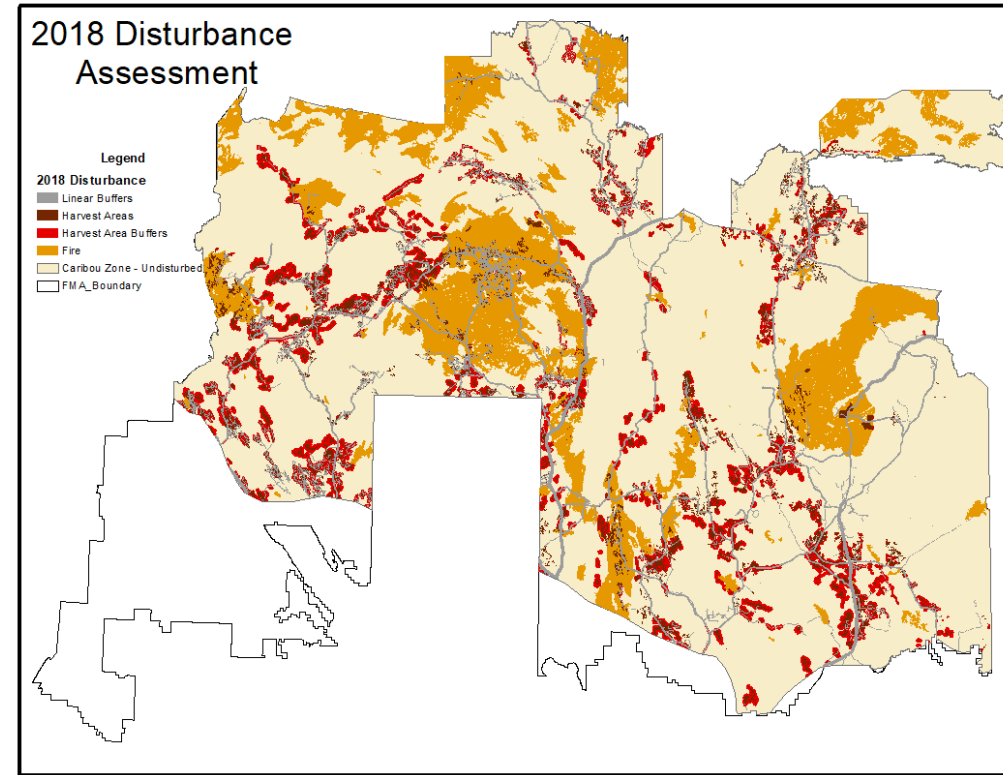
- 2017 disturbance level updated to 33% (from 34.8%). Error, more current info, improvement to method of assessing disturbance

Operating Year	Area Harvested in Tier 1 Areas (ha)	Total Disturbed Area *
2018-19	0	31.6%

Ind 7c Caribou Habitat

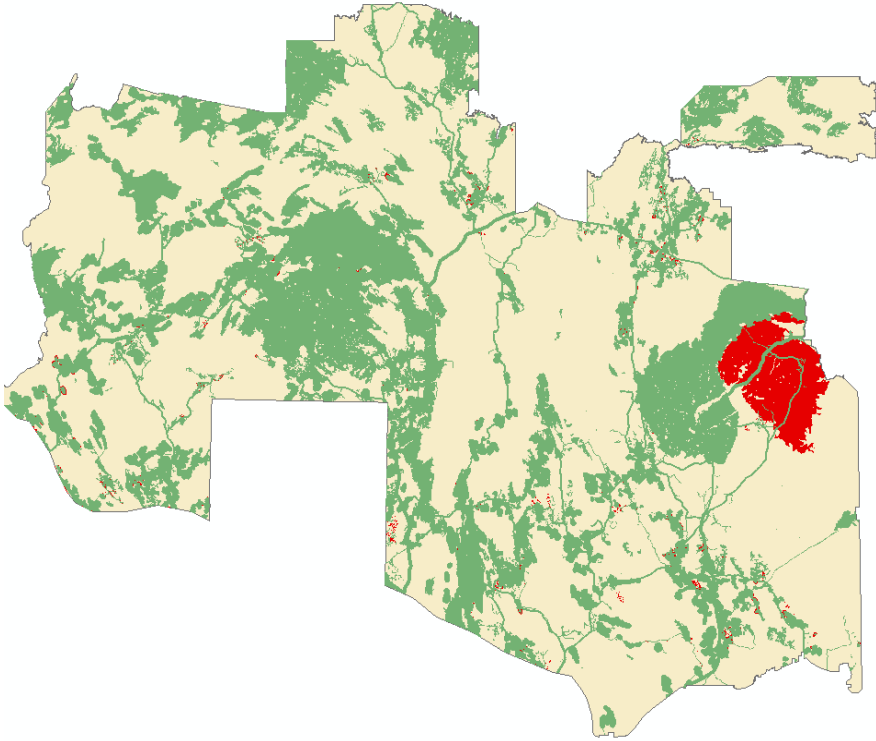


2017 Assessment of Disturbance (33%)

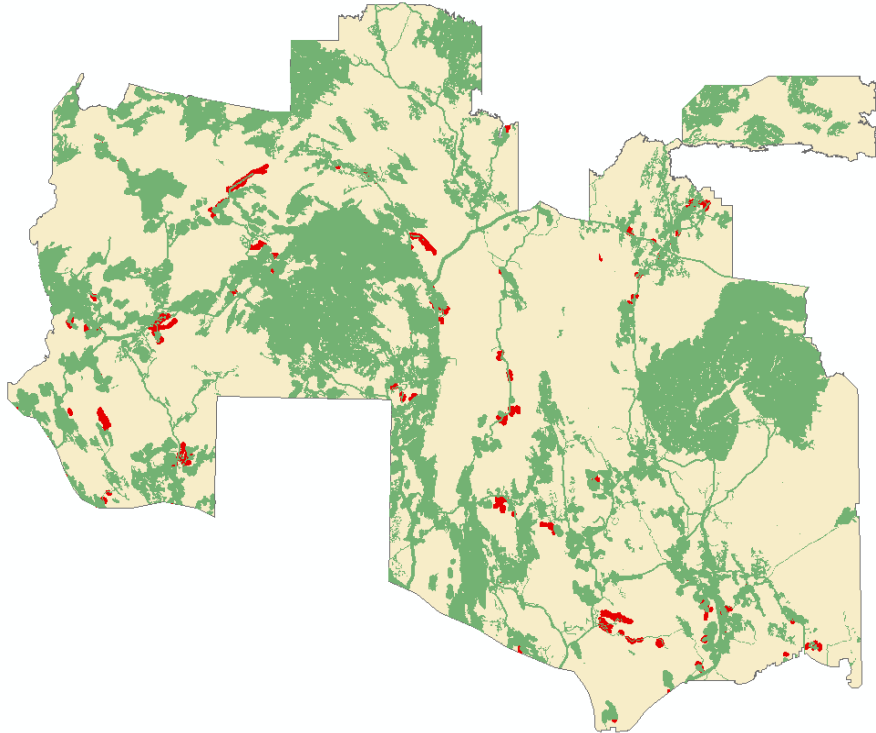


2018 Assessments of Disturbance (31.6%)

Ind 7c Caribou Habitat



2018 Disturbance Changes - Subtractions



2018 Disturbance Changes - Additions

Habitat: Ind 7a Area of Moose Habitat

Moose cover habitat is defined as stands >50 years old in the following species groups:

- White Spruce/Balsam Fir leading softwood stands (WSF)
- Black Spruce leading softwood stands (BSL, BSJ)
- Jack Pine leading softwood stands (JLP), and
- Mixedwood (hardwood & softwood) stands (PMW, SMW, HSM, HPM)



Moose browsing habitat is defined as stands <20 years old.

Reported every 5 years

FMP Year	Year 0 (2018)	Year 5 (2023)			Year 10 (2028)		
	Actual (ha)	Predicted (ha)	Actual (ha)	Variance (%)	Predicted (ha)	Actual (ha)	Variance (%)
Moose Cover Habitat	968,408	925,469			848,632		
Moose Browse Habitat	260,117	302,216			305,086		

Habitat: Ind 7b Area of Fisher Habitat

Fisher habitat is defined as stands 50-120 years old in the following species groups:

- White Spruce/Balsam Fir leading softwood stands (WSF)
- Black Spruce leading softwood stands (BSL, BSJ)
- Jack Pine leading softwood stands (JLP), and
- Mixedwood (hardwood & softwood) stands (SMW, HSM)



FMP Year	Year 0 (2018)	Year 5 (2023)			Year 10 (2028)	
	Actual (ha)	Predicted (ha)	Actual (ha)	Variance (%)	Predicted (ha)	Actual (ha)
Fisher Habitat Patches <5,000 ha	251,085	231,056			217,636	
Fisher Habitat Patches 5,000 – 10,000 ha	49,325	42,231			52,872	
Fisher Habitat Patches >10,000 ha	59,163	10,974			0	
Total	359,573	284,261			270,508	

Events: Ind 3 Size Distribution

Event-style harvesting:

- follows natural forest boundaries
- is clustered in an area
- carried out relatively quickly, so area can be reclaimed and the time over which it is impacted minimized
- preferred for environmental, forest health, and wildlife reasons

Events:

- harvested areas under 10 years old, within 500 m of each other
- harvested under previous FMPs, influenced by harvesting in 2018 under current FMP.
- measured if harvesting was completed

Size Targets and 2018-19 Event Sizes:

Harvest Event Size (ha)	Target % of Area Harvested	Acceptable Variance	2018-19
< 100	10%	+ - 10%	3 events (60%)
100 -1,500	65%	+ - 10%	2 events (40%)
>1,501-3,500	15%	+ - 10%	0
>3,501-8,500	10%	+ - 5%	0
>8001	0%	0%	0

Events: Ind 4 Event Retention

Event Retention:

- Total for event > 9% (>4% merchantable insular, remainder is proximal)
- Events ≥ 20 ha
- Removed any mistletoe salvage blocks from event area, events with harvesting under previous 3% standard
- Maps (Appendix A)

Operating Year	Event	Harvest Area (ha)	Insular Retention (Clumps/Islands)		Proximal Retention		Event Total Retention ¹ (%) >9% (Y/N)	Event Insular Retention ≥4% (Y/N)
			(ha)	(%)	(ha)	(%)		
2018-19	21-A	43.5	3.5	8.0%	7.1	16.4%	13% Y	Y
	21-B	235.8	12.5	5.3%	63.0	26.7%	10.3% Y	Y
	23-A	29.0	0	0%	4.2	14.6%	5% N	N
	Totals	308.3	16	5.2%	74.4	24.1%	10.2%	

Proximal retention included is capped at a maximum of 5%

Events: Ind 20 Event Duration

Duration – 10 years or less

- Start = date harvest started in the first harvested area of the event
- End = date renewal and in-block road reclamation are complete

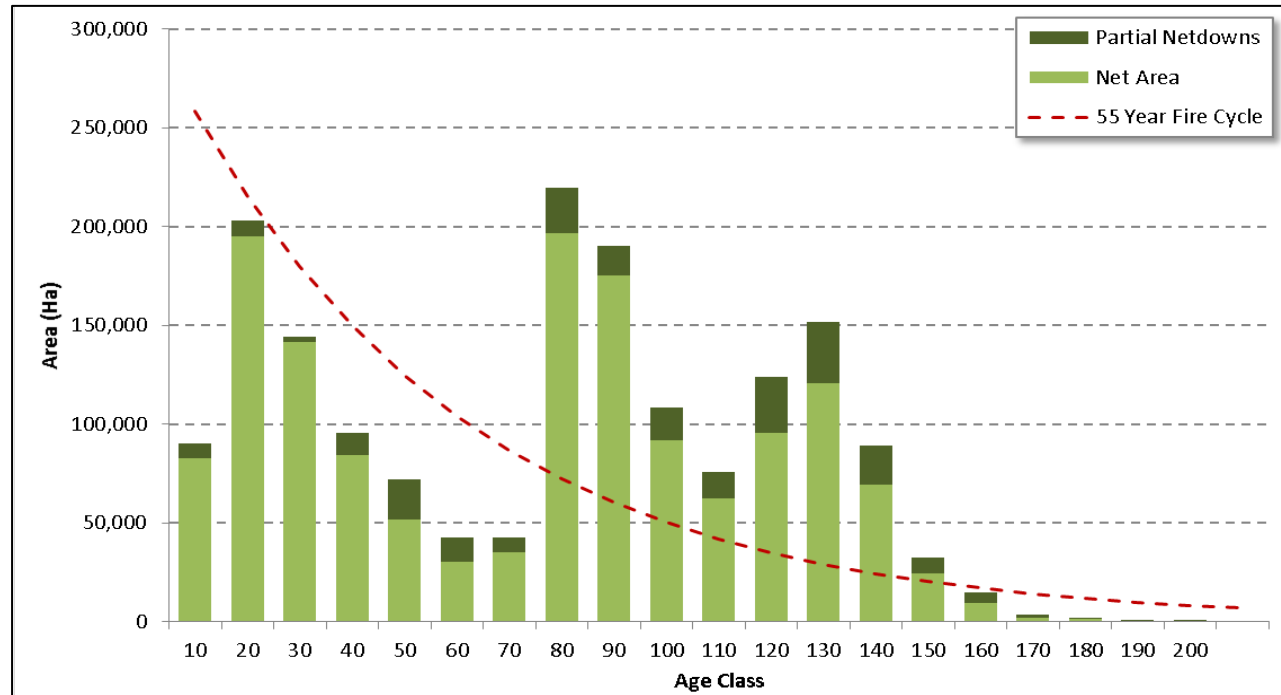
Events:

- 5 events. All completed within the targeted 10 years

	Event	Event Start Date	Event End Date	% Complete (as of Aug 2020)	Event Duration (years)	% of Events Lasting ≤10yrs
2018-19	14-B	2018-09-05	2019-06-30	100%	1	100 %
	14-C	2016-10-03	2020-08-01	100%	4	
	21-A	2018-08-21	2020-08-01	100%	2	
	21-B	2018-08-08	2020-08-01	100%	2	
	23-A	2019-01-07	2020-08-01	100%	2	

Natural Forest Patterns

Ind 1 Age Class Distribution of Managed Forest Land Base (MFLB)



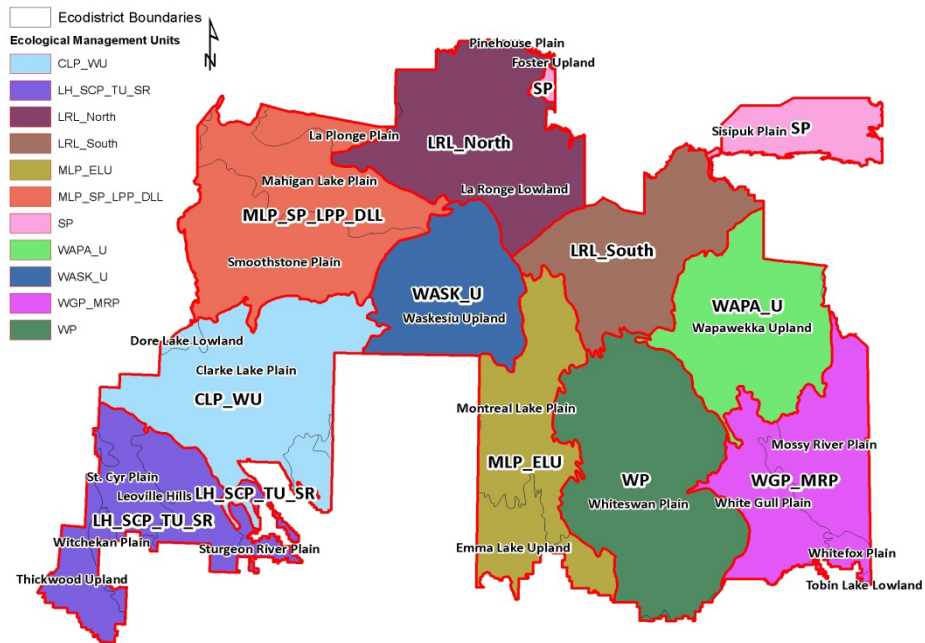
Will take decades to influence the age class towards target

Reported every 5 years

Assessed at 10 years

Natural Forest Patterns

Ind 2 Old & Very Old Forest, by Species Group, in Ecological Mgmt Units



Old + Very Old forest (a minimum portion of which is Very Old)
... in 5 forest type groupings,
... in 11 Ecological Management Units
= 110 targets

Can move if find a suitable replacement

Aiming for larger contiguous patches with 20% interior habitat

No old forest reserves impacted in 2018-19, as were placed outside of operating areas

Increasing more replacements need to be found as years go by, using a tracking system for recording them

Impacts to the reserves from natural disturbance don't count

Natural Forest Patterns

Ind 11 Stand Replacing Natural Disturbances

- portion of net landbase disturbed by stand replacing natural disturbance.
- “disturbed” is a stand replacing event > 10 ha, where there is loss of death of $\geq 50\%$ of the volume in a stand.
- once a threshold of 10% (132,323 ha) is disturbed a recalculation of the HVS assessment is triggered
- stand replacing events - fire, windthrow and flooding. 100% of those areas (>10 ha) are reported.
- information on insect and disease disturbances is provided but is not considered to be stand-replacing.
- next report, use 100 hectares for wildfire and 2 hectares for all other disturbances

Operating Year	Stand Replacing Disturbance (ha)				Insects/Disease
	Fire	Windthrow	Flood	Total	
2018-19	416	4,046	390	4,852	8,249

Natural Forest Patterns

Ind 12 Proportion of Salvage Harvest Left Unharvested

Targets:

- $\geq 20\%$ of a natural disturbance left unharvested. Contiguous area, no roads/trails, representative of the forest impacted
- 9% retention, or which 4% is insular. (exception for mistletoe)
- 12 areas in 2018-19 where the reasons for targeting those blocks for harvesting included wind (blowdown) damage to white spruce, significant jack pine deterioration stemming from snow press in 2016, and dwarf mistletoe infestation.
- however none of those areas met the definition of largely contiguous stands with $>50\%$ mortality covering at least 100 ha.

Operating Year	Nat. Disturbance Event Area	Type of Damage	Area Salvage Harvested	Insular Retention	Contiguous Area Left Unharvested	Meets $\geq 20\%$ Unharvested
	(ha)	(fire, wind, insects...)	(ha)	(%)	(ha)	(Y/N)
2018-19			0	N/A	N/A	N/A

Forest Management Activities

Ind 10a Managed Forest Land Base – Subtractions

Target:

- <300 ha/yr converted to non-forest land uses by licensee – roads, landing strips/pads, gravel pits etc.
- 25% variance allowed on annual limit. 5% variance on 5-year cumulative totals

- permanent features have a lifespan > 5 years (Class 1 & 2 roads & ditches)
- not considered permanent: gravel pits >.1 ha, winter roads, Class 3 & 4 roads

- in 2018-19 a Class 2 road, Swan Lake IBR, was built. No other landbase was converted to other uses

Operating Year	Class 1 Roads (ha)	Class 2 Roads (ha)	Gravel Pits, etc. (ha)	Total (ha)
2018-19	0	5.51*	0	5.51

Forest Management Activities

Ind 10b Managed Forest Land Base – Additions

Target:

- ≥ 0 hectares/year of reclamation of permanent access structures or afforestation by the licensee
- in 2018-19 no area was added back into the managed landbase by Sakaw

Operating Year	Class 1 Roads (ha)	Class 2 Roads (ha)	Gravel Pits, Afforestation etc. (ha)	Total (ha)
2018-19	0	0	0	0

Forest Management Activities

Ind 13 Harvested vs Estimated (Yield Curve) Volumes

Target: harvested volumes within 15% of the volumes estimated by the FMP yield curves

- Harvested Vol: delivered volumes (softwood sawlogs, softwood pulp and hardwood combined) were totaled for blocks where harvesting was completed, all stored volumes were hauled, and the volumes were reconciled. (data from multiple mills)
- Estimated Vol: estimated volumes were totaled using the forest inventory strata and associated softwood sawlog, softwood pulp and hardwood yield curves.
- yield curves used for a 10 cm top size (sawlogs), which was the utilization standard used that year.
- mapped retention areas were excluded

Operating year	Actual harvest (m ³ /ha)	Predicted harvest (m ³ /ha)	% difference (actual / predicted)
2018-19	169	168	1%

Forest Management Activities

Ind 21 Harvested Volumes vs Approved HVS

Targets: average annual volumes harvested in a five-year period are:

- 1,265,000 m³/year of softwood sawlogs
- 600,000 m³/year of softwood pulpwood, and
- 1,126,000 m³/year of hardwood

Includes wood allocated to Shareholders, Third-Parties, and hardwood reserved for potential future use.

Stored Wood: harvested volumes *include* some wood harvested in the previous year, and *do not include* some wood harvested in 2018-19 that was in storage sites at year-end. The 5-year assessment will take stored wood at the start and end of the 5-year period into account.

Operating Year	Softwood Sawlogs			Softwood Pulpwood			Hardwood		
	HVS Target ¹	Reconciled Harvested Volumes ²	% HVS Used	HVS Target ¹	Reconciled Harvested Volumes ²	% HVS Used	HVS Target ¹	Reconciled Harvested Volumes ²	% HVS Used
2018-19	1,265,000	678,419	54%	600,000	3,263	1%	1,126,000	753,802	67%

Forest Management Activities

Ind 15 Harvest within Tactical Plan Areas

Target:

- no more than 15% of mapped Sakâw shareholder harvest areas will fall outside of identified decade 1 or 2 tactical plan areas.
- third party harvesting will be encouraged to fall within the tactical plan blocks where possible.

Exceptions:

- salvage
- incorrect inventory data and harvesting is following intent of the plan
- harvest done by third parties

Harvest Year	Total Harvest Area (ha)*	Harvest Area Within Tactical Plan Polygons (ha)	Harvest Area Outside Tactical Plan Polygons (ha)	% Harvest Area Within Tactical Plan Polygons (ha)
2018-19	10,617	10,583	34	99.7%

Economic: Ind 28 Economic Contribution from Forest Industry

- Economic activity created by the forest industry in the PA FMA area is estimated under this indicator.
- The volume harvested in the year being reported on is multiplied by economic multipliers which represent the direct, indirect and induced economic activity associated with a cubic meter (m³) of wood moving through the economy.
- Induced economic activity is the result of increased personal income caused by the direct and indirect effects. It is money recirculated through household spending patterns, causing further local economic activity.

Economic Measure	Direct Impact		Direct and Indirect Impact		Direct, Indirect & Induced Impact	
	Economic Multiplier (per m ³)	2018-19	Economic Multiplier (per m ³)	2018-19	Economic Multiplier (per m ³)	2018-19
GDP (\$/m ³)	\$145.60	\$226,967,250	\$271.98	\$423,973,575	\$318.68	\$496,771,450
Jobs (#FTE/m3)	0.00075	1,169	0.001335	2,081	0.00153	2,385
Labor income (\$/m3)	\$65.93	\$102,774,387	\$109.89	\$171,301,037	\$123.66	\$192,766,278
Tax (\$/m3)	\$38.46	\$59,953,025	\$38.46	\$59,953,025	\$41.21	\$64,239,838

Compliance: Ind 14 Utilization

Target:

- Over a 5-year period 95% of all harvest areas inspected by the Ministry of Environment for utilization will be in compliance with the utilization standards approved in Operating Plans

Timber Product	Max. stump height	Min. Merch Ht (m)	Min. Top dib	Min Log length
Softwood sawlog	30cm	5.35m	10cm or 12.5cm	2.6m
Softwood pulpwood	30cm	5.35m	8cm	2.4m
Hardwood	30cm	5.35m	8cm	Tree length

Outcome:

- Operating Plan approval for using a 12.5 top size.
- Six non-compliances for blocks where notification was not provided in advance of harvesting.

Operating Year	# of Blocks Inspected for Utilization*	# of Blocks Where Utilization Assessed as Non-compliant**	% of Blocks in compliance	95% Compliance Achieved at 5 Years? (Y/N)
2018/19	87	6	93%	N

Compliance: Ind 16 Soil Disturbance

The factors inspected under soil disturbance include:

- Soil Protection (the amount of roads and landings created, rutting, disturbance from preparing sites for renewal)
- Construction and Maintenance of In-Block Roads and Landings
- Construction and Maintenance of Inter-Block Roads (width of road right of way, spills, fuel storage and handling, erosion control measures, and road surface water impediment)
- Slash management (abatement)
- Environmental Protection (fuel storage locations, wastewater disposal, solid waste disposal, camp reclamation/removal, hazardous waste removal, oil/fuel spills) Administration/Planning (maintenance of block boundaries)

Target:

- 100% of inspected harvest blocks comply with provincial standards related to soil disturbances. Non-compliances addressed within timeframe identified in a Ministry approved action plan not counted against target.

Compliance: Ind 16 Soil Disturbance

Operating Year	# Blocks or Roads Inspected for Soil Disturbance in 2018/19 ¹	# Blocks or Roads Assessed as being in Non-Compliance for Soil Disturbance ²	# Blocks or Roads Where Non-Compliance was Remedied, or No Action Taken, or VCO ³	% of Blocks or Roads in Compliance
2018/19	147	33	14	78%
2019/20				

42% of non-compliances were used for were used for educating, informing and communicating with people to improve compliance.

No Enforcement Action Taken	6
Voluntary Compliance Opportunity (including self-reported issues)	5
Enforcement Action - Notice of Violation	7
Enforcement Action - Administrative Penalties	15

Compliance: Ind 17 Road Reclamation

The factors inspected under road reclamation include:

- Reclamation of In-Block Roads and Landings, Reclamation of Inter-Block Roads, Borrow/Gravel Pits

Operating Year	# Blocks or Roads Inspected for Road Reclamation in 2018/19 ¹	# Blocks or Roads Assessed as being in Non-Compliance for Road Reclamation ²	# Blocks or Roads Where Non-Compliance was Remedied, or No Action Taken, or VCO ³	% of Blocks or Roads in Compliance
2018/19	32	6	4	81%

67% of non-compliances were used for were used for educating, informing and communicating with people to improve compliance.

No Action Taken	1
Voluntary Compliance Opportunity (usually self-reported issues)	1
Enforcement Action - Notices of Violation	3
Enforcement Action - Administrative Penalties	1

Compliance: Ind 18 Watercourse Crossings

- **Construction and Maintenance:**
 - Stream bed and banks are intact and stabilized
 - Deleterious material in stream
 - Alignment with natural stream channel
 - Fish passage (stream velocity, barriers)
 - Restriction of flow or ineffective maintenance
 - Erosion control measures
 - Soil buildup on bridge or culvert crossing surface
 - Exposed culvert ends past road fill
 - Clearance between bridge and current water level
 - Licenses, permits, plans and reports
- **Safety**
 - Bridge safety warnings
 - Vehicle deterrent at removed crossings
 - Crossing approach, sight lines, right of way vegetation control
 - Road bed or crossing condition – evidence of damage or deterioration
- **Removal and Reclamation**
 - Crossing structure removed and disposal of structures materials/crossing reclaimed
 - Stream bed and banks intact and stabilized
 - Crossing channel returned to original alignment, width, and depth
 - Deleterious material in stream
 - Spills, spill reporting, fuel storage, fuel handling

Compliance: Ind 18 Watercourse Crossings

Operating Year	# of Watercourse Crossings Inspected 2018/19 ¹	# of Watercourse Crossings Assessed as being in Non-Compliance ²	# of Watercourse Crossings Where Non-Compliance was Remedied, or No Action Taken, or VCO ³	% of Watercourse Crossings in Compliance
2018/19	21	18	17	

Average of 4 items inspected per crossing. One issue causes other issues, and one crossing can have multiple non-compliances

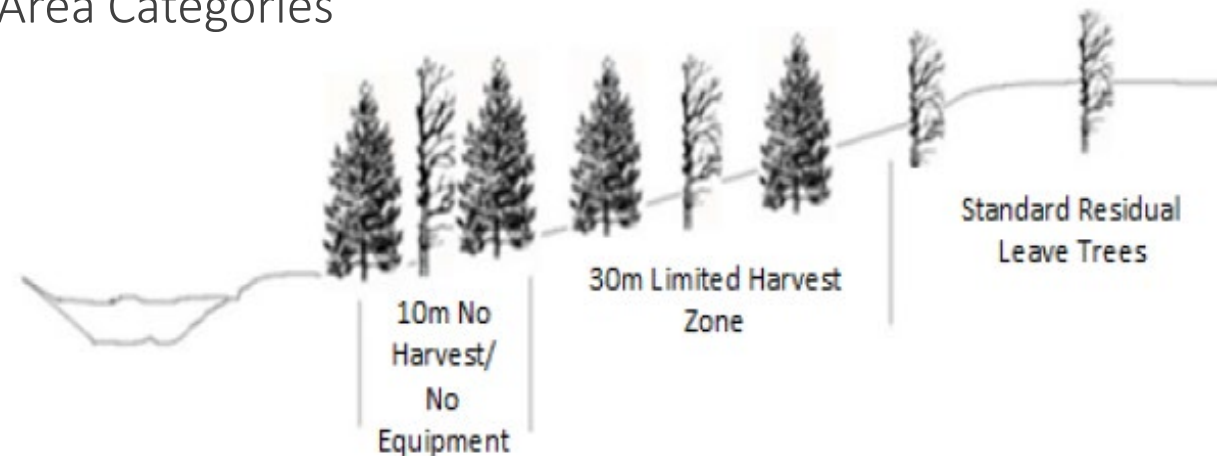
96% of non-compliances were used for were used for educating, informing and communicating with people to improve compliance.

No Enforcement Action Taken	14
Voluntary Compliance Opportunity (including self-reported issues)	9
Enforcement Action - Notice of Violation	0
Enforcement Action - Fine	1

Compliance: Ind 19 Riparian Management Standard

The factors inspected under riparian management areas include:

- Tree Retention
- Soil Protection
- Water Quality Protection
- Overlapping Riparian Management Area Categories
- Riparian Boundary Identified
- Riparian Boundary Maintained



Large lakes, rivers and streams

Compliance: Ind 19 Riparian Management Standard

Operating Year	# Blocks Inspected for Riparian Areas in 2018/19 ¹	# Blocks Assessed as being in Non-Compliance for Riparian Areas ²	# Blocks Where Non-Compliance was Remedied, or No Action Taken, or VCO ³	% of Blocks in Compliance
2018/19	16	4	0	75%

Four non-compliances were issued for not maintaining the riparian boundary, for which administrative penalties were issued. Two harvest areas were involved, with 3 of the non-compliances being issued for one area.

No Action Taken	0
Voluntary Compliance Opportunity (usually self-reported issues)	0
Enforcement Action - Notices of Violation	0
Enforcement Action - Administrative Penalties	4

Silviculture: Ind 5 Swd Component in H Stands

Target - Swd densities in H stands ≥ 200 stems per hectare (FTG or Early FTG surveys)

First data from establishment surveys on blocks harvested in 2018-19 (2027 Annual Report)

Started a system for tracking protection of white spruce understory in H stands

Silviculture Liabilities analysis based on 8 years of harvesting:

- 1,009 more ha Swd stands treated in H blocks, than SwD stands in H blocks that had **not** been treated



Silviculture: Ind 6 Cover Species Groups Harvested versus Predicted

- Target: regenerated stands reflect those that were harvested
- Harvest CSG - used species association matrix [H >75%; HS (50%-75% hwd); SH (50%-75% swd); S >75%]
- Predicted CSG at maturity – used SGR tables, based on stem densities from FTG surveys
- No FTG results under current FMP. Used areas harvested in 2004-05 that have reached FTG or Early FTG status
- Area of CSGs harvested is not closely correlated to the area of CSGs predicted at maturity and does not meet a target of 5% variance using either method of predicting the CSG at maturity.

Operating Year	CSG	Harvested Area		Predicted Area Using SGR Tables		Predicted Area Using Species Association Matrix (75%/25%)	
		(ha)	(adjusted ha)	(ha)	% Difference (predicted to harvested)	(ha)	% Difference (predicted to harvested)
2018-19	S	5,364	5,123	3,781	-26%	542	-89%
2004 Legacy Harvest	SH	1,476	1,409	3,912	178%	3,186	126%
	HS	1,879	1,794	2,050	14%	1,324	-26%
	H	3,706	3,540	2,123	-40%	6,815	93%
		12,424	11,867	11,867		11,867	

Silviculture: Ind 8 Planted Seedlings from Wild or Improved Seedlots

Targets:

- no genetically modified seed sources
- use of improved seed is maximized but can range from 0 – 100%

No increased growth rates from using selected seed sources was incorporated into wood supply modeling.

Operating Year	Number of Seedlings Planted	Improved Seed (%)	Wild Seed (%)
2018-19	3,110,765	73%	27%

Silviculture: Ind 9 Harvested Areas that are Free-to-Grow in 14 Years

Target:

- 100% of harvest areas meet free-to-grow stocking and heights within 14 years
- up to 2% of the area / yr can exceed the 14 year timeframe

2018-19 harvest areas will have an establishment survey in 2025-26 (7 years after harvest), their status will be reported in the 2027 Annual Report.

Feedback

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