

MISTIK MANAGEMENT LTD.

AUGUST 2022

2020/2021 ANNUAL CERTIFICATION REPORT

Mistik Management Ltd. and L&M Wood Products Forest Management Areas





Mistik Management Ltd. Annual Certification Report 2020/21 Operating Year

for the

Mistik Management Ltd. and L&M Wood Products (2018) LP

Forest Management Agreement Areas.

Prepared by
Niska Hodgson, RPF
Planning Manager, Mistik Management Ltd.
August 16, 2022





TABLE OF CONTENTS

1	Table of Contents	. 2
2	Introduction	3
3	Certification Target Summary	. 4
4	Certification Targets	. 4



INTRODUCTION

Mistik Management Ltd. ("Mistik") provides forest management services on behalf of its owners, NorSask Forest Products LP ("NorSask"), and Meadow Lake Mechanical Pulp Inc. ("MLMP"), both located near Meadow Lake, SK. Mistik also provides forest management services for NorthWind Forest Products LP ("NorthWind") located in Glaslyn SK. Both NorSask and NorthWind are owned by Meadow Lake Tribal Council.

Mistik and NorthWind conduct their forestry operations within the context of a 20-year Forest Management Plan (FMP) as required under provincial legislation and forest management agreements in Saskatchewan, Forest Management Plans must meet the requirements of the SK Environmental Code, Forest Management Planning Standard ("FMP standard"). Mistik's FMP provides strategic-level direction for management of forest resources within the Mistik and L&M Forest Management Agreement areas¹. The FMP establishes goals, objectives, and strategies to guide forest management activities, describes desired future forest conditions, and seeks to address land and resource use. Mistik's 2019-2039 20-year FMP was approved on May 23, 2019.

Mistik is required to track specific values, objectives, indicators, and targets that meet the Canadian Standards Association (CSA) Sustainable Forest Management Plan content requirements specified in the CAN/CSA-Z809 -16 Sustainable Forest Management Standard. In collaboration with our Public Advisory Group, we have established a sustainable forest management system accordingly.

Mistik is also certified to the FSC National Forest Stewardship Standard of Canada which represents the Canadian adaption of FSC's global principles, criteria, and International Generic Indicators. The national adaptation of this international framework ensures that the specific standard requirements are locally relevant, applicable and workable, as well as guaranteeing its integrity across the broader FSC system. Standard requirements from the 10 FSC principles are measured, tracked and documented through management control over activities occurring in the forest.

Annual reporting is required under both provincial legislation and certification programs. This information can be found in two documents:

- 1. Mistik Management Ltd. 2019-2039 20-year Forest Management Plan Annual Report. Note that this document includes reporting information on items that required under both the FMP and certification programs.
- 2. Mistik Management Ltd. Annual Certification Report.

Both documents can be found on Mistik's website (https://www.mistik.ca/forestmanagement/2019-fmp).

¹ The L&M Forest Management Agreement is now held by NorthWind Forest Products. Until such time as the L&M FMA is reassigned to NorthWind Forest Products LP, Mistik will continue to reference L&M throughout the FMP and annual reports for activities undertaken on the L&M Forest Management Agreement area.



CERTIFICATION TARGET SUMMARY



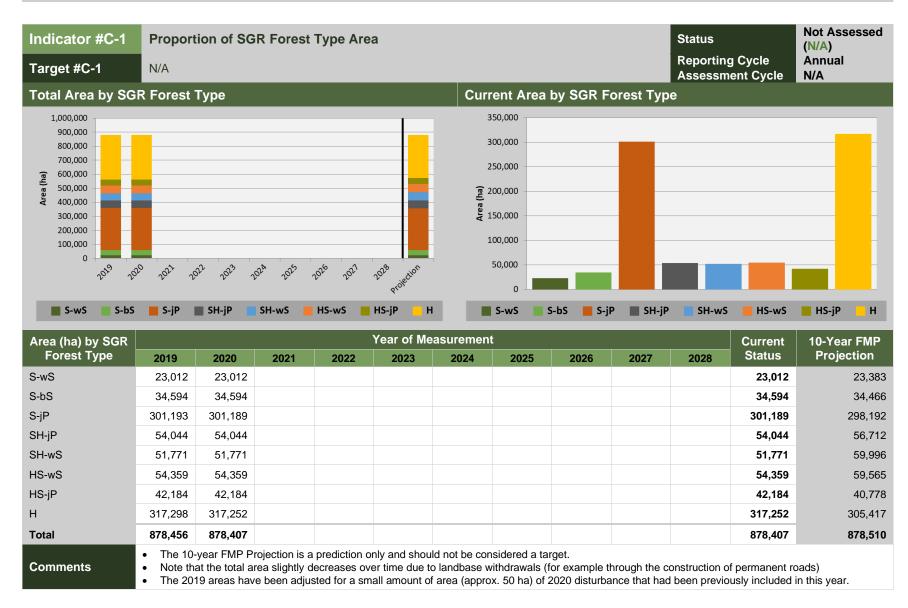
4 CERTIFICATION TARGETS

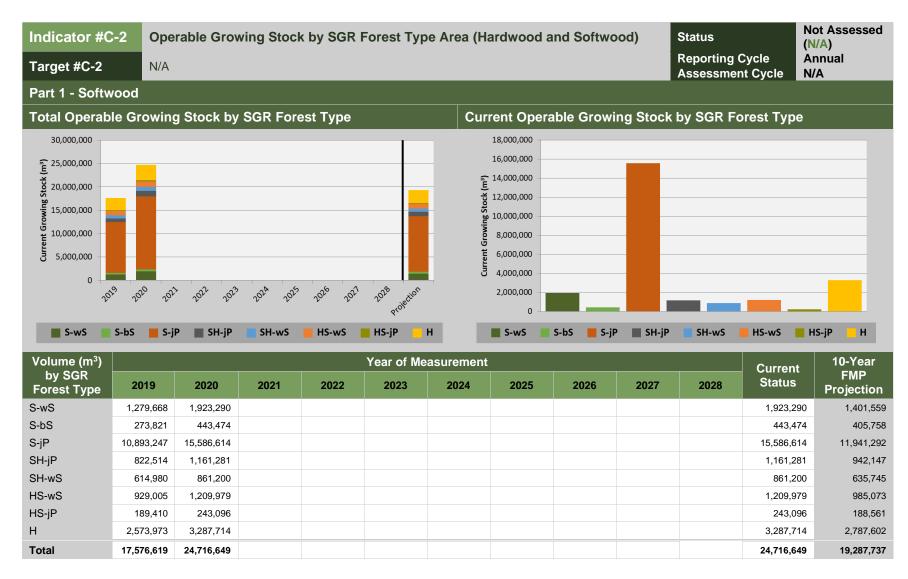
Reporting Item	Description	Status (Parts)	Reporting Cycle	Assessment Cycle	Next Assessment Year	Location
Indicator #C-1	Proportion of SGR Forest Type area	Not Assessed (N/A)	Annual	N/A	N/A	Page 6.
Indicator #C-2	Operable Growing stock by SGR Forest Type (hardwood and softwood)	Not Assessed (N/A)	Annual	N/A	N/A	Page 7.



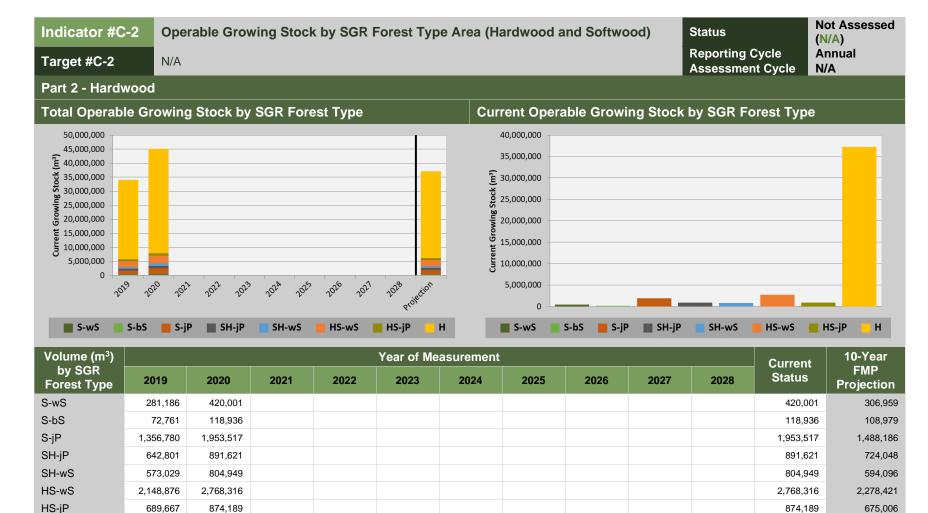
2020/21 ANNUAL CERTIFICATION PROJECT #E-206 AUGUST 2022

Reporting Item	Description	Status (Parts)	Reporting Cycle	Assessment Cycle	Next Assessment Year	Location
Indicator #C-3	Harvest volume by SGR Forest Type (hardwood and softwood)	Not Assessed (N/A)	Annual	N/A	N/A	Page 11.
Indicator #C-4	Percent of vegetation restoration species and seed mixes used in erosion control that are recommended by the province	On Target	Annual	Annual	Annual	Page 13.
Indicator #C-5	Insular retention area associated with harvest disturbance events	Off Target	N/A	N/A	N/A	Page 14.
Indicator #C-6	Number of advertisements made in local newspapers	On Target	Annual	Annual	Annual	Page 17.
Indicator #C-7	% of contractors who have received environmental and sustainable forest management awareness training	Off Target	Annual	Annual	Annual	Page 18.
Indicator #C-8	Map of known Woodland Caribou sightings	On Target	Annual	Annual	Annual	Page 19.
Indicator #C-9	Annual contributions to field monitoring of Woodland Caribou	On Target	Annual	Annual	Annual	Page 20.
Indicator #C-10	Level of downed woody debris	On Target (2/2)	Annual	Annual	Annual	Page 21.
Indicator #C-11	Net carbon (C) uptake	On Target	Annual	Annual	Annual	Page 23.
Indicator #C-12	Total area of natural disturbances (fire)	Not Assessed (N/A)	Annual	N/A	N/A	Page 26.
Indicator #C-13	Levels of employment	Not Assessed (N/A)	Annual	N/A	N/A	Page 27.
Indicator #C-14	Total person-days of work retained by persons of Aboriginal descent	On Target	Annual	Annual	Annual	Page 28.





- The 10-year FMP Projection is a prediction only and should not be considered a target.
- "Operable Growing Stock" refers to the amount of timber volume available, at the current time period, within each SGR Forest Type above the minimum harvest age (100 for S-WS/S-BS, 90 for SH-WS, 80 for HS-JP/HS-WS/SH-JP, and 70 for S-JP/H stands). Some softwood growing stock can be found in hardwood stands, and vice versa, due to incidental volume present (e.g., a deciduous stand with a small conifer component).
- Large differences in growing stock between 2019 and 2020 are largely caused by the aging of stands within the landbase, as stands are typically assigned an origin in the SFVI in an increment of 10 years (e.g., 1910, 1920, 1930, etc.), and these stands switch to the next age class also in years in increments of 10 (e.g., 2020), resulting in large amounts of area becoming operable in 2020, as well as an increase in volume for all stands (as volumes are also assigned based on 10-year age classes).



Comments

28.187.921

33,953,021

Н

Total

- The 10-year FMP Projection is a prediction only and should not be considered a target.
- "Operable Growing Stock" refers to the amount of timber volume available, at the current time period, within each SGR Forest Type above the minimum harvest age (100 for S-WS/S-BS, 90 for SH-WS, 80 for HS-JP/HS-WS/SH-JP, and 70 for S-JP/H stands). Some softwood growing stock can be found in hardwood stands, and vice versa, due to incidental volume present (e.g., a deciduous stand with a small conifer component).

37.210.342

45,041,870

30.882.801

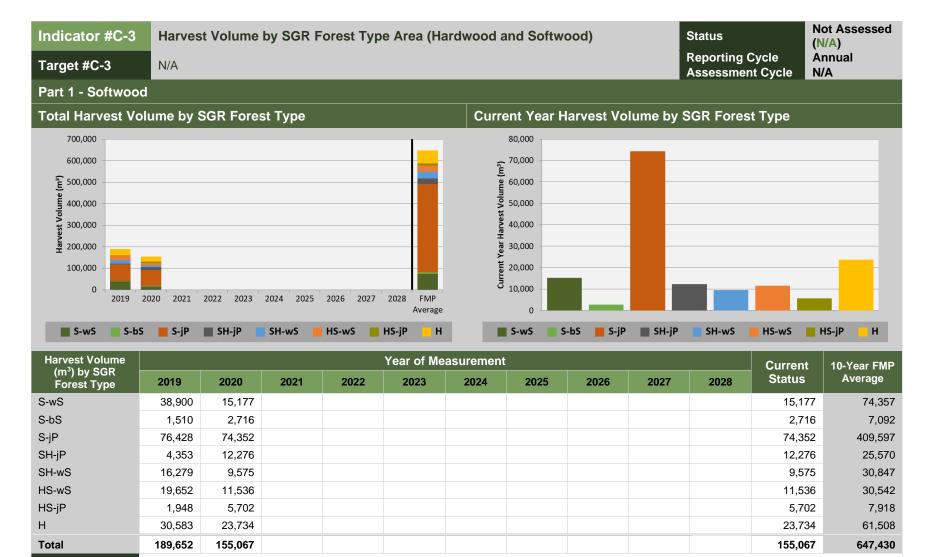
37,058,496

37.210.342

45,041,870

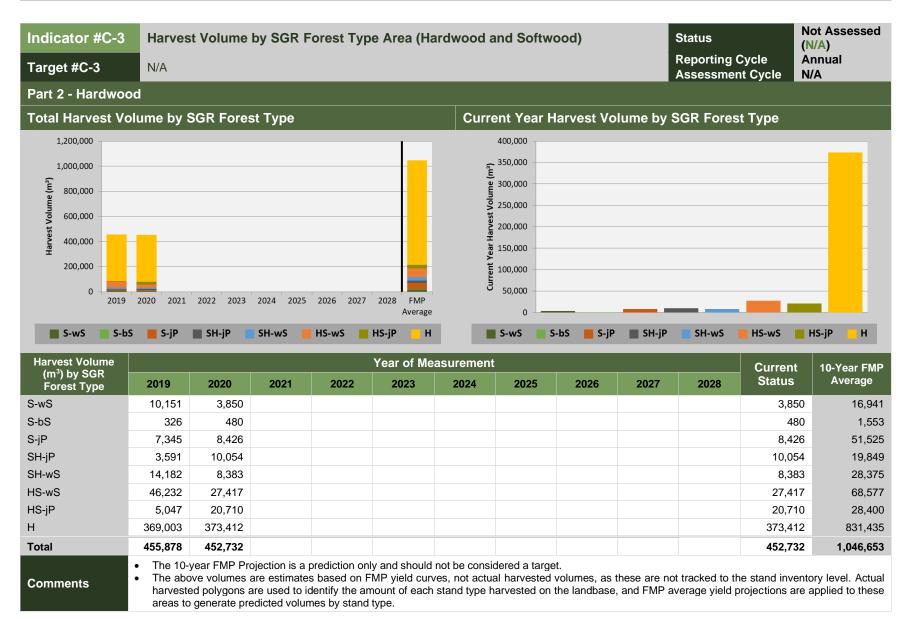


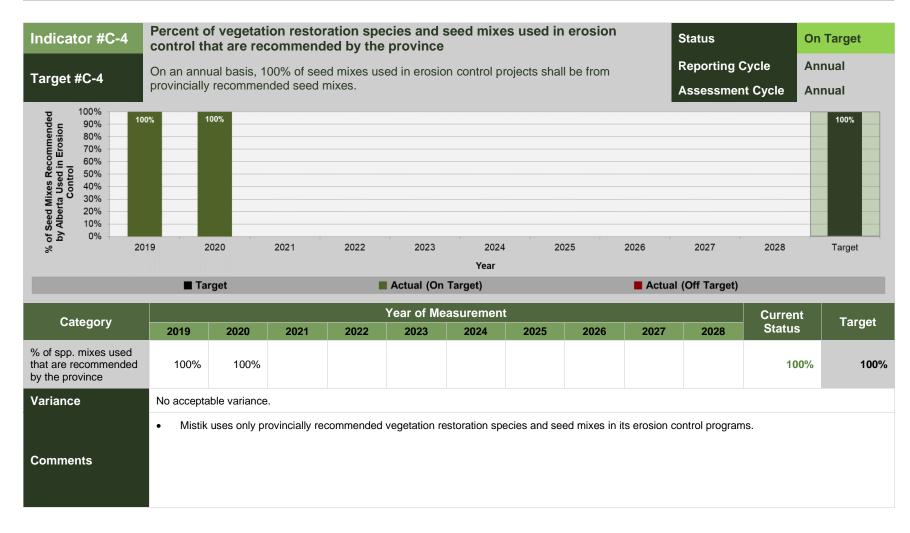
• Large differences in growing stock between 2019 and 2020 are largely caused by the aging of stands within the landbase, as stands are typically assigned an origin in the SFVI in an increment of 10 years (e.g., 1910, 1920, 1930, etc.), and these stands switch to the next age class also in years in increments of 10 (e.g., 2020), resulting in large amounts of area becoming operable in 2020, as well as an increase in volume for all stands (as volumes are also assigned based on 10-year age classes).



- The 10-year FMP Average is a prediction only and should not be considered a target.

 The 10-year FMP Average is a prediction only and should not be considered a target.
- The above volumes are estimates based on FMP yield curves, not actual harvested volumes, as these are not tracked to the stand inventory level. Actual harvested polygons are used to identify the amount of each stand type harvested on the landbase, and FMP average yield projections are applied to these areas to generate predicted volumes by stand type.





MISTIK 2020/21 ANNUAL CERTIFICATION REPORT

Indicator #C-5

Target #C-5

Insular retention area associated with harvest blocks

For the Mistik FMA and L&M areas, based on an annual minimum sample of 10% of the number of harvested blocks (typically one block per management unit): a.) The total area of merchantable timber left as retention (including islands, clumps, and dispersed residuals) will be greater than or equal to 5% of the harvested area on average, with a target range of 2 – 20% for individual blocks. b.) An average of 2 trees per hectare in merchantable dispersed residuals will be maintained.

Status **Off Target Reporting Cycle Annual Assessment Cycle Annual**

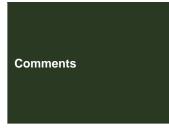
Part 1 - Total Retention (All types)

Current Blocks, by Total Retention % Average Retention %, by Type **Target Range** 10% 7 8.6% 9% Average % of Harvested Blocks 8% 6 7% of Sampled Blocks 5 6% 5% 5% 4 3.8% 4% 3 3% 2 2% 1 1% 0 0 <2% 2 - 8% 8 - 14% 14 - 20% >20% 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 Target **Total Retention %** Year Dispersed Clump Island Peninsular **■** Target Current (On Target) Current (Off Target)

Harvested Block Area, by	Year of Measurement										Current	Target
Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Status	rarget
Dispersed Residuals (Avg. %)	0.1%	0.0%									0.1%	N/A
Clumps (Avg. %)	7.8%	3.2%									3.2%	N/A
Islands (Avg. %)	0.4%	0.6%									0.6%	N/A
Peninsular Retention (Avg. %)	0.4%	0.0%									0.0%	N/A
Total (Avg. %)	8.6%	3.8%									3.8%	≥ 5%
Total (% Range)	3.3 - 14.0%	1.8 – 6.8%									1.8 – 6.2%	2 - 20%

Variance No acceptable variance.





- · Assessments are completed using a combination of satellite imagery delineation and onsite field verification of each block.
- 8 blocks from MUs 01, 02, 03, 04, 07, 08, 12, and 85 were sampled from the 2020-21 timber year, with a combined area of 594 ha.
- Types of retention are defined as follows:
 - "Dispersed Residual" = Groups of up to 4 trees of merchantable size (alive or dead)
 - o "Clump" = Groups of 5 or more trees, less than 1 ha in size
 - o "Island" = 1 ha or greater in size
 - o "Peninsular Retention" = riparian area within blocks (i.e., not along boundary) associated with ephemeral watercourses.
- Mistik recognizes that these numbers are lower than the targets and we will work with contractors and supervisors to ensure adequate retention is being left in harvest blocks and events.

MISTIK 2020/21 ANNUAL CERTIFICATION REPORT

Indicator #C-5

Target #C-5

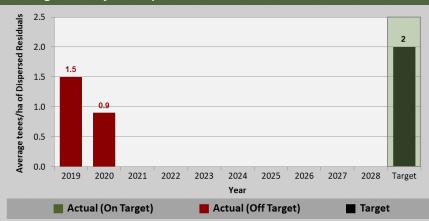
Insular retention area associated with harvest blocks

For the Mistik FMA and L&M areas, based on an annual minimum sample of 10% of the number of harvested blocks (typically one block per management unit): a.) The total area of merchantable timber left as retention (including islands, clumps, and dispersed residuals) will be greater than or equal to 5% of the harvested area on average, with a target range of 2 – 20% for individual blocks. b.) An average of 2 trees per hectare in merchantable dispersed residuals will be maintained.

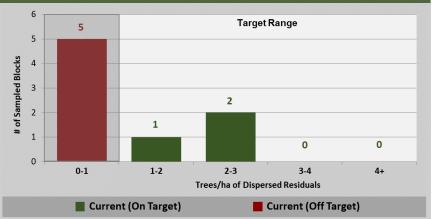
Status Off Target Reporting Cycle Annual Assessment Cycle Annual

Part 2 - Dispersed Residuals

Average Density of Dispersed Residuals



Current Blocks, by Trees/Ha of Dispersed Residuals



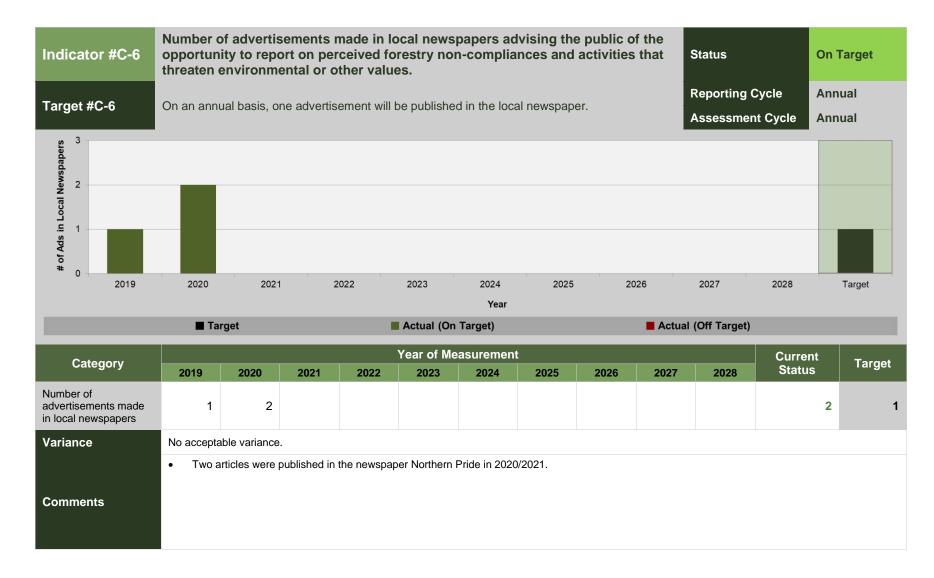
Category			Current	Target								
Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Status	rarget
Average trees/ha of dispersed residuals (Live)	0.8	0.7									0.7	N/A
Average trees/ha of dispersed residuals (Dead)	0.7	0.2									0.2	N/A
Average trees/ha of dispersed residuals (Total)	1.5	0.9									0.9	2.0

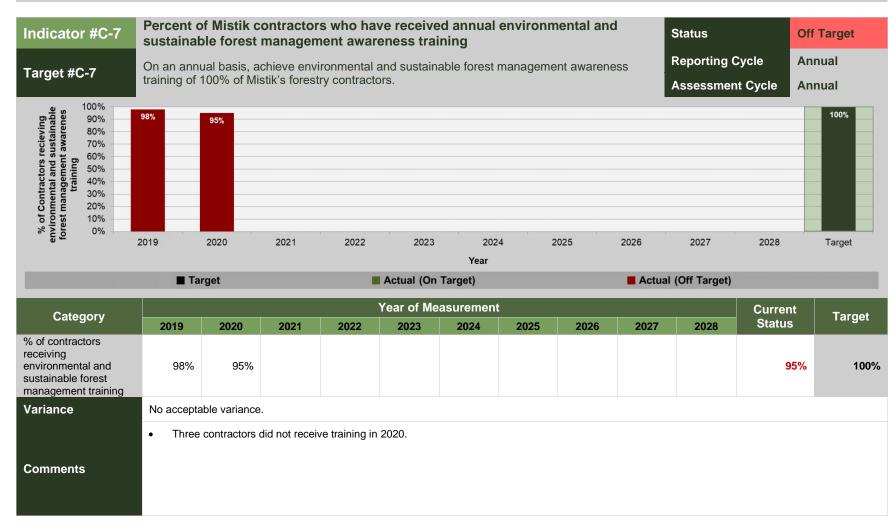
Variance

Comments

No acceptable variance.

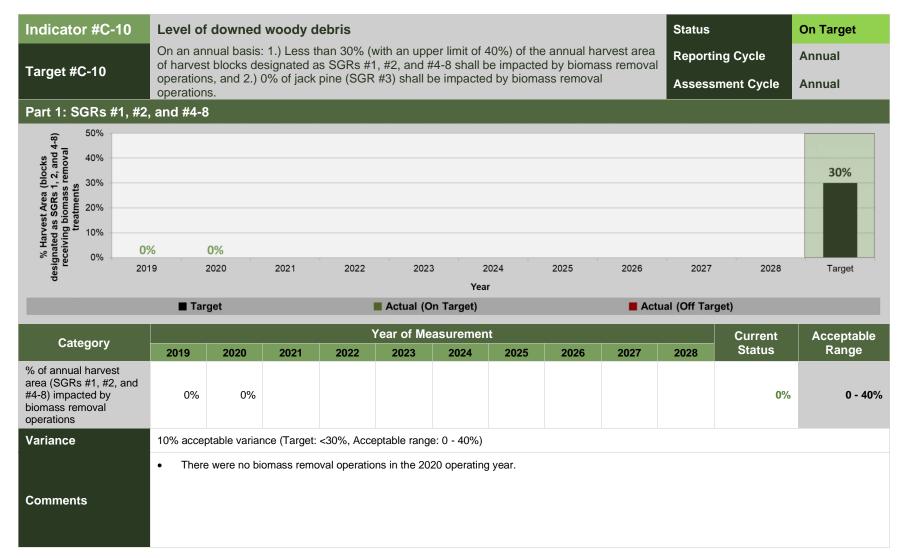
- Assessments are completed using a combination of satellite imagery delineation and onsite field verification of each block.
- 8 blocks from MUs 01, 02, 03, 04, 07, 08, 12, and 85 were sampled from the 2020-21 timber year, with a combined area of 594 ha.
- "Dispersed Residual" = Groups of up to 4 trees of merchantable size (alive or dead).
- Mistik recognizes that these numbers are lower than the targets and we will work with contractors and supervisors to ensure adequate retention is being left in harvest blocks and events.

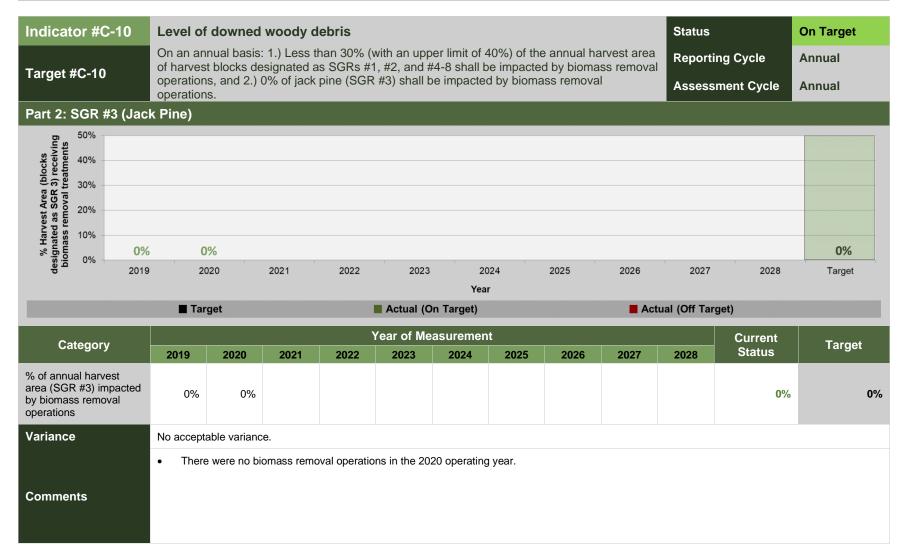




Indicator #C-8	Map of kn	own Woodla	ınd Caribou	sightings				Status		On Target			
Target #C-8	On an annual basis, maintain a GIS map product of all known sightings of Woodland Caribou within the Mistik FMA area. Reporting Cycle Assessment Cycle Annual												
Category	Year of Measurement												
- Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028			
Number of New Additions	2	3											
Map Produced?	V	\checkmark											
Variance	No acceptabl	e variance.											
Comments	See atta	iched Caribou Si	ightings Map.										

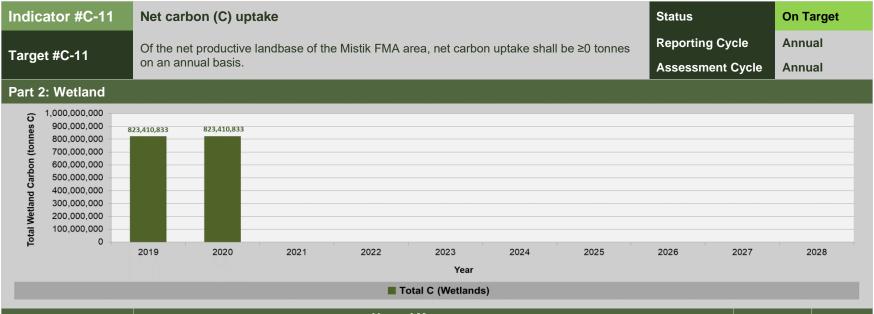
Indicator #C-9	Annual co	Annual contributions to field monitoring of Woodland Caribou Status On Target												
Target #C-9	Assessment Cycle And Assessment Cycle													
Category	Year of Measurement													
Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028				
Contribution (\$/recipient)	\$0	\$773.54												
Contributions Met?	X	V												
Variance	No acceptab	le variance.												
Comments	Mistik has deployed a series of high-quality game cameras to capture images and/or video of significant species (species at risk, species of interest and study species). The cameras are set up at key seasonal locations in an attempt to record species numbers, condition, and direction of travel. Cameras are checked on a semi-regular basis (2-3 months) to limit potential disturbance.													







Values for emissions from forest operations are estimated based on a baseline estimate of 20,048 tonnes, weighted by total volume harvested each
year.



Category		Year of Measurement												
Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Status	Target		
Total Wetland Area (All Types (ha)	890,982	890,982									890,982	N/A		
% Wetland Area (All Types)	50%	50%									50%	N/A		
Estimated wetland soil carbon (tonnes)	823,410,833	823,410,833									823,410,833	N/A		

Variance

N/A

- In June 2019, Mistik Management Ltd and Ducks Unlimited Canada (DUC) renewed a Memorandum of Understanding (MOU) committing to partner
 on various projects to advance wetland and waterfowl stewardship. Part of this commitment includes an inventory and assessment of Mistik's FMA
 and Controlled Wood Supply areas for wetland habitat and carbon storage estimates. These estimates represent the most recent estimations of
 wetland soil carbon on the FMA, using estimated mean soil organic carbon densities for 19 detail wetland classes.
- Note that these estimates were generated using different methodology from those in Part 1 and may not be directly comparable.
- While these estimates are not updated annually, future updates to this assessment of wetlands in Mistik's FMA may be completed as part of this partnership, in which case the estimates above will be updated.

¹ Mistik Management Ltd. and Ducks Unlimited Canada. (2020). Boreal Wetlands and Waterfowl: A Commitment to Stewardship Activities in Saskatchewan: Comprehensive Review. Unpublished report.



Category				Current	Cumulative							
Category	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Status	Average
Fire disturbance area (ha)	70	0									0	35
Other disturbance area (ha)	0	0									0	0
Total disturbance area (ha)	70	0									0	35

Variance

N/A

- No fires occurred in 2020
- Fire disturbance area is based on fire boundaries provided by the Government of Saskatchewan.
- Other disturbance types may include insect disturbance, disease, blowdown, etc. These are only mapped/reported in the event that a very large and disruptive event occurs (i.e., approaching 10% of the contributing forested landbase).



