

**2023-2024 Freehold
Annual Report**

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Version 1.0
September 2024

1.0 General

This annual report covers all activities that occurred on AV Group NB Inc. (AVG) Freehold from April 1, 2023 to March 31, 2024.

2.0 Roads and Watercourses

2.1 Construction

Table 1. Summary of roads constructed on AVG Freehold by road type and length during the operating year.

Road Type	Meters Built
Forest (F1-3)	0
Logging (F4)	4,419
Winter (F10)	0

2.2 Area Lost to Roads

Table 2. Area lost to roads on AVG Freehold during the operating year.

Cut block area (ha)	Total length of new roads built (m)	Average ROW width (m)	Area lost to new roads built (ha)	Area lost versus cut blocks (%)
542	4,419	20	8.8	1.6%

2.3 Maintenance

There were a number of road repair projects completed during the operating season. These are all tracked in the road maintenance application and a copy of completed work is in the annual report folder.

2.4 Watercourse Crossings

There were no temp crossing installed or removed in 2022-24 on Freehold. There were 3 new stream crossings installed on Freehold

3.0 Harvest

Seventy-eight percent of the AAC was harvested this operating season. Hardwood AAC was undercut by 10%, softwood was under harvested by 28% to compensate for last year's overharvest. Table 3 shows the individual species AAC's on and cut levels on Freehold. Table 4 shows the total volume harvested volumes by species determined in the management plan. This is compared to the cumulative AAC for that time period to depict the harvest trend for Freehold harvest. Table 5 shows a summary of blocks operated, area treated and average block size by prescriptions used.

Table 3. Harvested volumes measured against 2021-2032 management plan levels.

	Hardwood	Softwood	Cedar	Pine	Hemlock	Biomass	Total
AAC (m ³)	50,900	35,408	3,430	780	1,185	0	91,703
Harvest (m ³)	49,749	31,129	1,615	150	238	204	83,085
Harvest versus AAC	98%	87%	47%	19%	20%	0	91%

Table 4. Period Cumulative harvest versus AAC 2021-2032

Species	AAC	Delivered	Variance m3	% of AAC
HW	152,027	140,182	-11,845	92%
SPFJ	105,623	93,614	-12,009	89%
EC	10,222	4,107	-6,115	41%
WP & RP	2,330	729	-1,601	31%
HE	3,498	611	-2,887	18%

Table 5. Average block size for area harvested on AVN Freehold during the operating year.

Treatment Type	Area (hectares)	Average size (hectares)	# of Blocks
Variable Retention	420	22.2	19
Tolerant Hardwood Two Age Class	67.7	33.9	2
Shelterwood	53.9	27.0	2

4.0 Silviculture

4.1 Silviculture Activities

Table 6 is a high-level summary of all silviculture activities on Freehold. All records of silviculture operations are updated and maintained in GIS.

47.35 ha's of herbicide was completed in 2023.

Table 6. Silviculture area by treatment type versus 2021-2032 management plan levels on Freehold during the operating year.

Silviculture Treatment Type	Area Treated (ha)	Silviculture Target Levels (ha)	2021-2032 area treated (ha)	2021-2032 target levels (ha)
Pre-commercial Thinning	112.25	200	496.9	600
Full Planting	0	50	77.5	150
Scarification	0	50	110.8	150

5.0 Fish and Wildlife

318K286 – Broad shouldered hawk nest found

318K132 – 2 barred owls using northern goshawk nest

328K299 – Black Ash site

6.0 Public Values

During this operating season we were able to meet with the following groups:

- Snowmobile Club in October
- Skiff Lake Camp Committee Spring 2022
- DTI multiple visits.
- SNB annual meeting
- Risk assessment group for herbicide
- Maguadavic lake association
- McAdam City for well site and road usage
- NB ATV federation

- SENB annual meeting
- Northumberland annual meeting
- YSC annual meeting
- Protected Natural Areas committee meeting.

7.0. FSC Monitoring Table

1) Poor Regeneration

a) Regeneration assessment

- i) There were not regeneration issues recorded for the 2023-24 harvest. This is recorded in the 'Regen Assessment' excel workbook.

b) Budworm resistant species planted where possible (Tree improved WS, and JP)

c) Pecking order adjusted in PCT to favor species that will do better with climate change data.

2) Invasive Species

- a) Japanese Larch was planted 30+ years ago in some trials. These trees were sterile when planted, regen assessments conducted in 2021 confirmed they are not seeding or spreading in any other way.

3) Fertilizers

- a) No fertilizers were used on Freehold.

4) Herbicide

- a) Healthy Forest Partnership does over 1,000+ plots per year to zone in to areas where budworm is at a level that need to be treated. All herbicide blocks are visually inspected to ensure they require treatment.

- i) Budworm will only be treated where L2 counts > 11 per branch are found

- ii) Herbicide blocks will only be treated when planted trees are overtopped partially or completely by hardwood or non-woody vegetation.

- iii) HFP did trials on using pheromones over chemicals. For Vegetation management AVG did some manual spacing trials that were not cost effective or ecologically effective.

- iv) Prohibited pesticides are not used in NB

5) Non-Timber Forest Products

- a) Maple syrup production occurs on a small acreage in the Freehold, in 2023; 159,560L of sap were boiled to produce maple syrup.
- 6) Plantation Assessments: There was 75 hectares planted in 2021, at this time they have not been assessed. These are scheduled to be assessed in the fall of 2024 and will be reported on in next year's annual report.
- 7) Free to Grow (year 10 plantation assessments): Two blocks were assessed and are scheduled to be cleaned in 2023. 318G207, 27.5ha & 318H114 13.3ha – These were cleaned in 2024. 318F001 was assessed in 2024 and is scheduled to be cleaned in 2025.

ANNEX C:

Aerial Herbicide Tending Project Plan

Block treated	Area	Product used	Date treated	Effectiveness	Comments
318B007	33.27ha	Glyphosate	Aug	95%	edges and striping
308B009	14.09	Glyphosate	Aug	95%	Edges and striping

Regeneration site assessments:

No sites with poor regeneration were found. The Regen Assessment excel table keeps records of blocks visited.