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Figure 2.12

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FOREST MANAGEMENT AGREEMENT AREA

LANDSCAPE MANAGEMENT UNITS

Rge 5 Rge 4 Rge 3 Rge 2 Rge 1 6th MER Rge 27 Rge 26 Rge 25 Rge 24 Rge 23 Rge 22 Rge 21 Rge 20 Rge 19 Rge 18 Rge 17

Twp 64 Twp 63 Twp 62 Twp 61 Twp 60 Twp 59 Twp 58 Twp 57 Twp 56 Twp 55

N W E S

Fox Creek

Two Creeks

Muskeg River

CARIBOU ZONE

Provincial Location of FMA

LANDSCAPE MANAGEMENT UNIT NAMES

- Northeast Little Smoky Plateau
- West Berland Plateau
- South Berland Plateau
- Southwest Berland Plateau
- Fox Creek Benchland
- Iosegun Plain
- Central Little Smoky Plateau
- West Little Smoky Plateau
- Little Smoky Valley
- Mayberne Plateau
- Muskeg Foothills
- Simonette Benchland
- Windfall Plain

CARIBOU ZONE BOUNDARY

E6 (BERLAND)

ATS grid

Recreation areas

Scale 1:425,000

10 0 10 km

Projection: Universal Transverse Mercator zone 11
NAD 83 GRS 80
By:mdesketa
GDC project ref: 2000096

GDC
GEOGRAPHIC DYNAMICS CORP.

- The lack of necessary adaptations for range expansion
- Climatic variations, such as climate change, which affect the plant's population

It is evident that there are many factors contributing to a plant's rarity that fall outside of the control of ANC Timber's management activities. Issues such as climate change and low reproductive output cannot be addressed through forest operation strategies.

2.3.2.2 Levels of Rarity

A standard method of determining the level of rarity for rare and endangered plants has been developed by The Nature Conservancy (1982). The first step involves ranking the plant on the following geographic scales:

G = global (status throughout its entire range)
N = national (status in Canada)
S = subnational (status in a province, e.g. Alberta)

Once a plant is ranked based on its geographic range, such factors as abundance, range, level of protection, and threats must be considered. Once these factors are considered, a rank can be assigned based on the Canadian rarity status codes for plant species, as described below.

2.3.2.3. Canadian Rarity Status Codes for Plant Species

1	Critically imperiled due to extreme rarity (5 or fewer occurrences)
2	Imperiled because of rarity (6 to 20 occurrences)
3	Rare or uncommon (21 to 100 occurrences)
4	Apparently secure, with many occurrences
5.	Abundant and demonstrably secure, with many occurrences
Q	Questionable taxonomic rank
R	Reported but without persuasive documentation to either accept or reject the report
U	Uncertain status, possibly in peril; more information is needed
?	No information is available, or the number of occurrences is estimated

Status for taxa at the subspecies or variety level are designated as TX, where X is one of the status codes described above. For example, a taxon designated as G5T1 would be secure on a global scale, but the subspecies would be critically imperiled.

2.3.2.4 Rare and Endangered Plants Within the FMA Area

The following is a list of tracked plant elements with one or more occurrences in the ANC FMA area, as provided by the Alberta Natural Heritage Information Centre (May 18, 2000). Included in the list are the associated S-Rank and G-Rank. Figure 2.13 indicates known locations of some of these species**.** A habitat description is also provided for each species, along with a possible link to a related ecosite, as described in the ANC Timber Ecological Assessment Report (GDC 1999).

Sand Sedge *(Carex houghtoniana)* S-Rank: S2 G-Rank: G5

Sand Sedge grows in dry, sandy or gravelly habitats in the boreal forest of the prairie provinces (Johnson et al.1995). Within the FMA area, it was found on only one occasion, on a slope of an

existing reclaimed pipeline corridor that had been seeded with introduced grasses and cicer milk-vetch.

Slender Hair Grass *(Deschampsia elongata)* **S-Rank: S1** **G-Rank: G5**

This grass tends to grow in meadows and open slopes in the foothills and boreal forest (Moss 1983). The only known location of this species within the FMA area is along a woodland road on disturbed ground.

Brown Moss (*Drepanocladus capillifolius*) **S-Rank: S1** **G-Rank: G?**

This species of brown moss tends to grow in open bogs, reflected in the location in which it was found within the FMA area. However, little other information concerning this species exists. Habitat information will be updated once it becomes available.

Fontinalis antipyretica **S-Rank: S1** **G-Rank: G5**

This species of Fontinalis is occasionally found within the FMA area in stagnant pools and slowly flowing streams (Vitt et al. 1988). It is a submerged aquatic, that may be either attached to rocks or logs in moving water or floating loose in the stagnant water of pools and backwaters, commonly in somewhat shaded sites. It's two known sightings both occurred in small bogs near creeks.

Tall Blue Lettuce *(Lactuca biennis)* **S-Rank: S2** **G-Rank: G5**

From the Composite Family, *Lactuca biennis* is typically found in moist open woods and clearings, including disturbed sites (Moss 1983). The general site description where this species was found within the FMA area is a mixedwood stand with a subhygric moisture regime and a rich nutrient regime.

Melanelia multispora **S-Rank: S2?** **G-Rank: G?**

This brown isidiate Melanelias is a leafy lichen that is most often found on the bark of shrubs, conifers and deciduous trees in open to somewhat sheltered forests. Occasionally, this species can be also found growing on boulders (Vitt et al. 1988). Moist, mid-elevation forests are the most likely locations in which this species may be found.

Orthotrichum pallens **S-Rank: S2** **G-Rank: G5**

Orthoctrichum pallens is a bark moss that grows with other *Orthotrichum* species (i.e.: *Orthotrichum obtusifolium*). It is typically found on the barks of deciduous trees, particularly aspen and balsam poplar and usually in open forests (Vitt et al. 1988).

Narrow Beechfern (*Phegopteris connectilis)* **S-Rank: S2** **G-Rank: G5**

This circumpolar fern has also been called *Thelypteris phegopteris* and is similar to the more common oak fern *(Gymnocarpium dryopteris).* Narrow beechfern grows in moist, wooded sites, often along stream sides in the foothills and boreal forest (Kershaw et al. 1998). It's known location in the FMA area is in a balsam poplar stand, among river alder, honeysuckle, dogwood and lady fern.

Pogonatum dentatum **S-Rank: S2** **G-Rank: G5**

This species grows as isolated individuals on disturbed acidic, gravelly or sandy, alpine soil and on humid cliff ledges. It can be found in the subalpine, foothills and boreal forest regions (Vitt et al. 1988). The two known locations of this plant within the FMA area are in a lodgepole pine stand and on a clay bank.

Rge 5 | Rge 4 | Rge 3 | Rge 2 | Rge 1 | 6th MER | Rge 27 | Rge 26 | Rge 25 | Rge 24 | Rge 23 | Rge 22 | Rge 21 | Rge 20 | Rge 19 | Rge 18 | Rge 17

Twp 64 / Twp 63 / Twp 62 / Twp 61 / Twp 60 / Twp 59 / Twp 58 / Twp 57 / Twp 56 / Twp 55

Alberta Newsprint Company

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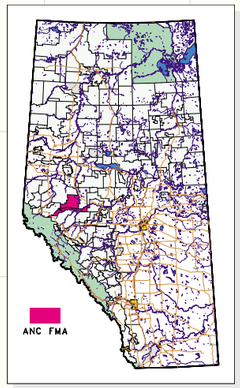
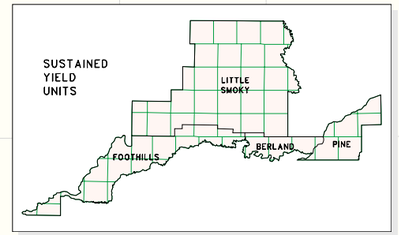
FOREST MANAGEMENT AREA

RARE,THREATENED,AND ENDANGERED PLANTS

Figure 2.13





RARE, THREATENED, AND ENDANGERED PLANTS

KNOWN LOCATIONS OF PLANTS

1 — NUMBER CORRESPONDS TO SPECIES TYPE IN LEGEND

1	SN = *Ranunculus uncinatus* CN = hairy buttercup	6	SN = *Drepanocladus capillifolius* CN = brown moss
2	SN = *Deschampsia elongata* CN = slender hair grass	7	SN = *Lactuca biennisa* CN = tall blue lettuce
3	SN = *Orthotrichum pallens*	8	SN = *Melaneiia multispora*
4	SN = *Schistostega pennata* CN = luminous moss	9	SN = *Carex houghtoniana* CN = sand sedge
5	SN = *Sphagnum contortum* CN = twisted bog moss	10	SN = *Pogonatum dentatum* CN = hair-like pogonatum

CN = COMMON NAME SN = SCIENTIFIC NAME

Map 6
Map Date: Feb 5, 2001
Map Scale: 1 : 400000
Map Production by Silvacom Ltd.
Silvacom Ref: F-057
Map File:
../f-057/maps/map4/plants

SILVACOM LTD
Edmonton, Alberta

Thread-leaved Pondweed (*Potamogeton foliosus)* **S-Rank: S2** **G-Rank: G5**

This species is an aquatic plant of the Pondweed family (Potamogetonaceae). Thread-leaved Pondweed grows in shallow water and may be found scattered throughout the region (Kershaw et al. 1998).

Little Buttercup (*Ranunculus uncinatus)* **S-Rank: S2** **G-Rank: G5**

Ranunculus uncinatus is in the buttercup family (Ranunculaceae) and is closely related to the more common meadow buttercup (*Ranunculus acris*). Little buttercup tends to grow on moist, shaded slopes and woodlands in the foothills and montane zones within Alberta (Kershaw et al. 1998). Within the FMA area, this plant was found in a white spruce stand on imperfectly drained soil.

Schistostega pennata **S-Rank: S1/S2** **G-Rank: G4**

This rare moss may be found on shaded cliff crevices or, more commonly, on shaded sterile mineral soil of overturned tree roots in swampy forests and near watercourses. Its range extends form the boreal forest and foothills natural subregions, to the subalpine (Schofield 1992).

Sphagnum contortum **S-Rank: S1** **G-Rank: G5**

Habitat information for this species is currently unavailable due to limited data.

2.3.3 Age Class Structure

To evaluate and describe existing forest conditions in the FMA area, ANC completed the detailed assessment of forest age-class structure at the landscape level. This allows ANC to determine the affect of historical and current forest management activities at the landscape-level. We have used the age-class structure as a surrogate for measuring the natural range of variability. ANC evaluated age-class structure for the entire FMA area, the Caribou Zone, and each of the four natural subregions (NSR).

2.3.3.1. Methods

In order to assess the current state of the forested landscape, forest stands were grouped on the basis of species composition and age. Species groups were calculated from AVI overstorey features:

1. **Pure Deciduous (“D”)**: 80–100% of the stand crown closure is composed of deciduous species.
2. **Mixedwood – Deciduous Leading (“DC”)**: 50–79% of the stand crown closure is composed of deciduous species.
3. **Mixedwood – Conifer Leading (“CD”)**: 50% to 79% of the stand crown closure is composed of conifer species.
4. **Pure conifer (“C”):** 80–100% of the stand crown closure is composed of conifer species. Cutblocks were assigned to the pure conifer species group.
5. **Non-forested (“NF”)**: Lands with <6% tree cover.
6. **Recreational (“REC”)**: Recreational areas both forested and non-forested.

Stand ages were determined using 1999 as the base year and the AVI stand origin. Cutblocks are included in the youngest age class category and the age-class distribution is evaluated at the time zero (1999). The predicted age-class distribution is described in detail in Chapter 4.

The landscape structure assessment also includes the analysis of stand horizontal structure. The horizontal stand structure is considered producing TSA age-class maps. The horizontal stand structure "… occur when polygons have two or more significant and observable strata or homogenous units occurring within the same polygon, at least one of which is too small to stratify out individually" (Alberta Vegetation Inventory Standards Manual, 1997). Stand horizontal structure is derived from the TSA and consists of, at most, two components. Stands without horizontal structure are considered harvested when its entire area is cut. The stands with horizontal structure (i.e., stands consisting of two components) are considered harvested when component 1, usually the largest in area, is harvested (Silvacom 1999).

Preliminary data assessment indicated that landscape-level area groupings were not sufficient for habitat type modelling. Therefore, predicting area distributions by habitat types required a set of variables and rules different than those for FMA-wide species cover group analyses. The spatial distribution was structured using the Landscape Assessment Report (Silvacom 2001) species group variable. For the habitat type modeling, the landscape-level species group ('spgp_la') variable was replaced by the stand-level species group variable ('spgp'). The stand-level data allowed the delineation of the habitat types, which would not be feasible using landscape-level variables. Table 2.13 shows relationships between the two variables, number of records, and associated areas in hectares in the ANC database.

Table 2.13 Stand-level vs. landscape level species group variable transition summaries

Stand-Level ('spgp')	Landscape-Level ('spgp_la')	Number of Records (ANC Landscape Database)	Area (ha)
	NF	15,872	17,324
	REC	291	1,714
	C	1,612	7,925
Subtotal		17,775	26,963
D	D	5,227	25,082
D	NF	485	232
D	REC	187	756
D	C	2,148	5,197
Subtotal		8,047	31,267
DC	DC	3,219	12,924
DC	NF	123	60
DC	REC	46	142
DC	C	659	1,566
Subtotal		4,047	14,692
C	NF	3,291	1,235
C	REC	843	2,073
C	C	78,326	288,030
Subtotal		82,460	291,338
CD	NF	119	67
CD	REC	79	213
CD	C	541	1,707
CD	CD	3,356	12,478
Subtotal		4,095	12,758

Original AVI was based on 1990 aerial photography. However, FMU W8 and portions of E6 and W1 have since been updated using 1:15,000 scale 1997 photography. Updates using annual cutblock photography have also been incorporated into the analysis. The leading species is used to determine whether the composition is DC or CD in cases where the species composition is 50% conifer and 50% deciduous.

In the original AVI spatial database, 17,775 records (26,963 ha) do not have stand-level attribute data. Some of these records are new cut-blocks for which AVI information cannot be assigned. Also, there are some species group changes between the stand- and landscape-level species group variables that are described in detail in the TSA (Silvacom 1999). The following subsections describe in detail the area and associated age-class structure summaries for the FMA area as a whole, the Caribou zone, and the eight habitat types.

2.3.3.2. Entire FMA Area

The landbase of the ANC FMA area is comprised of approximately 95% forested and 5% non-forested area. Eighty-one percent is comprised of coniferous forests, while 6.8% is made up of mixedwood stands, and 6.7% is comprised of deciduous stands.

For the analysis of the current forest structure in the FMA area, the data were aggregated by age-classes and canopy species groups (Figure 2.14). The FMA area analysis used landscape level species group, because it was done in the Landscape Assessment Report (Silvacom 2001). The stands were grouped into four canopy species groups (D, DC, C, and CD) and eleven 20-year age-classes. Stands over 201 years old were assigned into a single '201+' age-class. Table 2.14 lists the breakdown of net land base age-class structure over the FMA area, after deletions in order to describe the net landbase age class structure.

Table 2.14 FMA area current age-class distribution, by species groups, in hectares

Age class (yrs)	Species Groups			
	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	19	2	30,215	1
21-40	2,548	1,695	3,392	375
41-60	4,789	1,661	10,641	882
61-80	5,763	1,435	47,723	1,025
81-100	4,456	2,245	63,895	2,009
101-120	6,208	5,363	98,475	6,863
121-140	1,099	505	21,073	1,034
141-160[1]	199	17	18,562	243
161-180	0	0	2,811	28
181-200	0	0	4,941	18
201+	0	0	2,699	0
Total Area (ha)	25,082	12,924	304,425	12,478

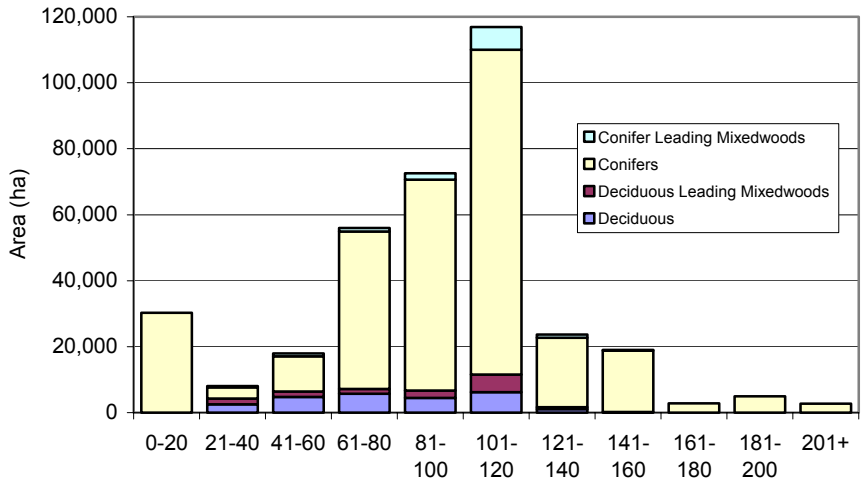


Figure 2.15 Current Age-Class Structure, by Species Groups

Figure 2.15 indicates that the current age-class structure in the FMA area is close to normal distribution centered on middle age age-classes. Analyses show that currently the FMA area does not have any deciduous or deciduous dominant mixedwood species groups (D and DC) that are older than 160 years. The age-class structure of deciduous forest groups maintains similar proportions among the first six 20-year age-classes except the first one (between 0 and 20 years). There are predicted to be only 21 ha of forestland (after deletions) in this age-class in the first age-class.

Pure conifer species group (C) dominates the landscape and occur in almost every age-class, including older ones. The total area comprised of stands that are older than 200 years is rather small, however. Pure conifer stands (C) are the most representative species group in the FMA area. They also have a significant area in the youngest age-class (approximately 30,215 ha). Conifer leading mixedwood forests (CD) are the smallest group with few areas in the youngest age-class. For both conifer species groups, the majority of forest area is in 100 to 120 year old age-class and comprises almost 30% of the classified forestland.

2.3.3.3. Natural Subregions

This analysis is based on the entire FMA area analysis subdivided into four natural subregions: 1) Central Mixedwood, 2) Lower Foothills, 3) Upper Foothills, and 4) Subalpine Natural Subregion. As for the entire FMA area, the stands were grouped into four canopy species groups (D, DC, C, and CD) and eleven 20-year age-classes. Stands over 201 years old were assigned into a single '201+' age-class. Table 2.15, Figures 2.16-2.19 summarize the species groups by the natural subregion, after deletions.

Rge 5 | Rge 4 | Rge 3 | Rge 2 | Rge 1 | 6th MER | Rge 27 | Rge 26 | Rge 25 | Rge 24 | Rge 23 | Rge 22 | Rge 21 | Rge 20 | Rge 19 | Rge 18 | Rge 17

Twp 64 / Twp 63 / Twp 62 / Twp 61 / Twp 60 / Twp 59 / Twp 58 / Twp 57 / Twp 56 / Twp 55

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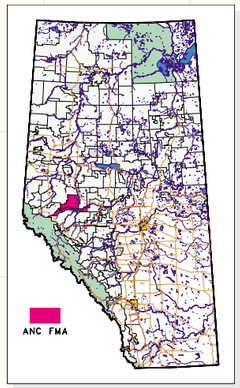
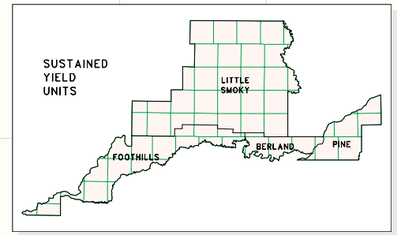
FOREST MANAGEMENT AREA

RARE,THREATENED,AND ENDANGERED PLANTS

Figure 2.14





RARE, THREATENED, AND ENDANGERED PLANTS

KNOWN LOCATIONS OF PLANTS

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1	SN = *Ranunculus uncinatus* CN = hairy buttercup	6	SN = *Drepanocladus capillifolius* CN = brown moss
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CN = COMMON NAME SN = SCIENTIFIC NAME

Map 6
Map Date: Feb 5, 2001
Map Scale: 1 : 400000
Map Production by Silvacom Ltd.
Silvacom Ref: F-057
Map File:
../f-057/maps/map4/plants

SILVACOM LTD
Edmonton, Alberta

Table 2.15 FMA area summaries, by NSR and species groups

Central Mixedwood Natural Subregion -- Area Predictions by Species Groups				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	1,159	0
21-40	643	21	5	0
41-60	59	0	11	0
61-80	262	75	1,705	38
81-100	883	10	119	46
101-120	475	41	785	0
121-140	392	90	994	141
141-160	0	0	168	1
161-180	0	0	0	0
181-200	0	0	0	0
201+	0	0	0	0
Total	2,714	237	4,947	227

Lower Foothills Natural Subregion -- Area Projections by Species Groups				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	18	2	23,431	0
21-40	1,512	1,598	1,719	227
41-60	4,345	1,332	7,131	750
61-80	4,630	1,095	8,990	736
81-100	3,303	2,128	12,061	1,502
101-120	5,342	4,708	50,735	5,862
121-140	691	406	9,337	841
141-160	199	2	4,533	242
161-180	0	0	1,372	28
181-200	0	0	554	18
201+	0	0	103	0
Total	20,040	11,271	119,964	10,206

Upper Foothills Natural Subregion -- Area Projections by Species Groups				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	1	0	5,602	1
21-40	392	76	1,651	148
41-60	385	329	3,493	131
61-80	871	265	36,719	251
81-100	270	107	50,963	461
101-120	392	614	45,419	1,002
121-140	16	9	8,837	52
141-160	0	15	6,758	0
161-180	0	0	1,081	0
181-200	0	0	3,514	0
201+	0	0	1,721	0
Total	2,328	1,416	165,756	2,045

Table 2.15 Continued

Subalpine Natural Subregion -- Area Projections by Species Groups				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	23	0
21-40	0	0	17	0
41-60	0	0	6	0
61-80	0	0	309	0
81-100	0	0	752	0
101-120	0	0	1,535	0
121-140	0	0	1,906	0
141-160	0	0	7,103	0
161-180	0	0	359	0
181-200	0	0	872	0
201+	0	0	875	0
Total	0	0	13,758	0

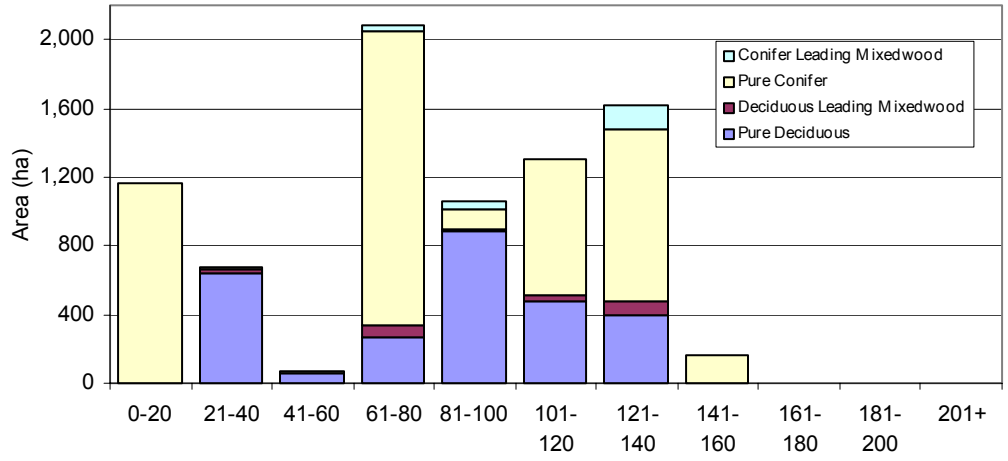

Figure 2.16 Area Summary, by Species Groups, in Central Mixedwood NSR

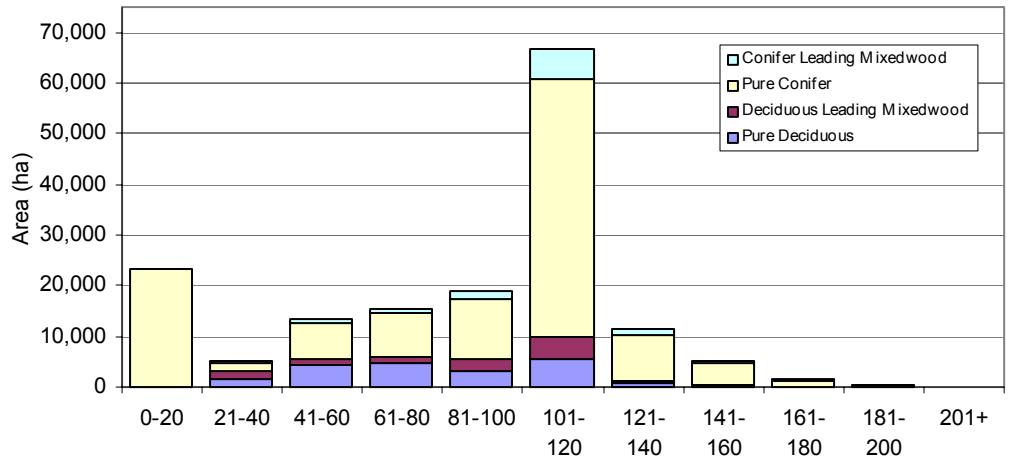

Figure 2.17 Area Summary, by Species Groups, in Lower Foothills NSR

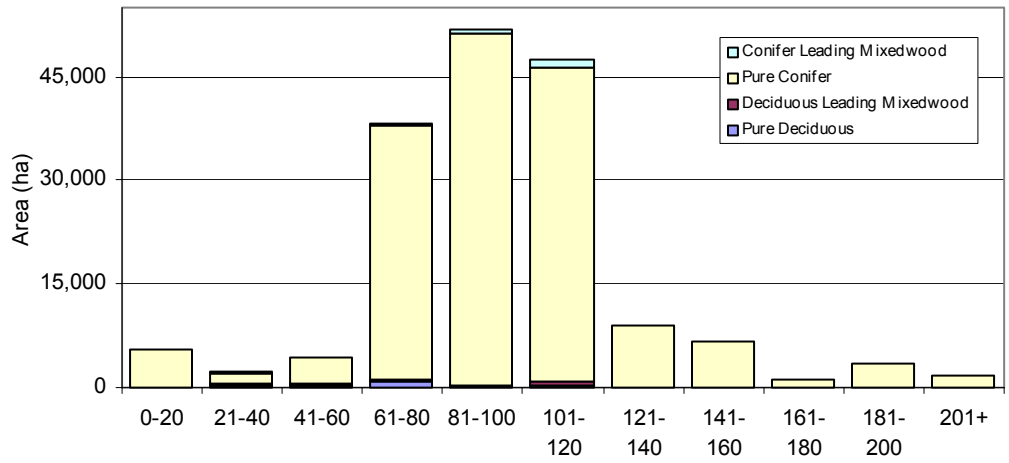

Figure 2.18 Area Summary, by Species Groups, in Upper Foothills NSR

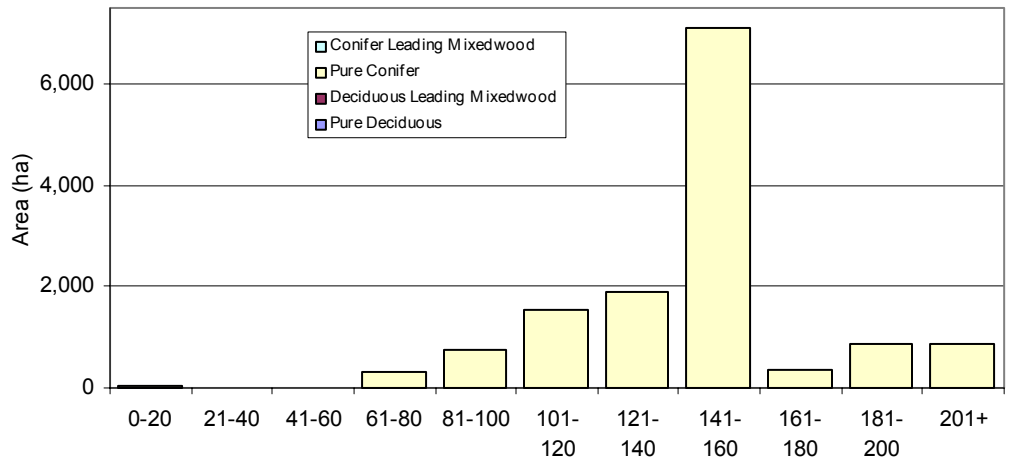

Figure 2.19 Area Summary, by Species Groups, in Subalpine NSR

The Central Mixedwood Subregion is the smallest component of the ANC FMA Area (2%). Ninety-three percent of the Central Mixedwood Subregion is forested land; of this, 31% is deciduous. Coniferous forests make up 56% of the Central Mixedwood Subregion. A very small portion of this subregion is comprised of mixedwoods, where only 227 ha (2.6% of the subregion) are conifer leading mixedwoods (CD); around 237 ha (2.7%) are deciduous leading mixedwoods (DC). The majority of forests are classified as pure conifer stands (C). They cover 4,947 ha (56.4%) leaving 2,714 ha (31.0%) for pure deciduous forests (D). There are no forests in the Central Mixedwood that are older than 160 years. Analyses indicate that currently this subregion does not have any pure deciduous or deciduous dominant mixedwood species groups that are younger than 20 years or older than 160 years. Only pure conifer species group is represented in the youngest age-class.

Lower Foothills NSR consists of 174,811 ha (46.2% of the entire FMA area). The main species group is pure conifer (C), covering 119,964 ha (68.6%) in the natural subregion. The smallest area assigned to a species group consists of conifer leading mixedwood (CD), covering 10,206 ha (5.8%). A very small portion of this subregion is comprised of pure deciduous (D) and deciduous leading mixedwood (DC). They cover 20,040 ha (11.5%) and 11,271 ha (6.4%), respectively. Lower Foothills have relatively large area of the pure conifers in the youngest age-class 23,431 ha (13.4%), but very few areas with pure deciduous and deciduous dominant forests in this age-class. Their combined area is 20 ha. Stands that are older than 180 years represent a very small portion of the forests (675 ha or 0.3%). These stands consist of only pure conifer and conifer dominant forests. Overall, the age-class structure in Lower Foothill Natural Subregion indicates a rather wide range of natural variability.

The Subalpine comprises 14,402 ha (3.8%). It is comprised of only pure conifer (C) species group. Most of these forests are in middle age age-classes (i.e., between 100 and 160 years). Only 46 ha of area are younger than 60 years. The combined area by the age-classes is highly variable.

Upper Foothills comprises 180,746 ha (47.7%) of the entire FMA area. It is the largest NSR in the FMA. Pure conifer (C) characterize this subregion and extend across 165,756 ha (91.7%) of the area. The smallest area in this subregion consists of deciduous leading mixedwoods (DC), covering 1,416 ha (0.8%). Except for the pure confer stand, this natural subregion has very few hectares of young and old forests. At the other end of the age spectrum, 6,316 ha (3.7%) of pure conifer stands are older than 160 years. Most of the subregion area consists of middle age age-class stands leaving only a few areas for very young or very old stands. Overall, the age-class structure in Upper Foothill NSR has a significant range of natural variability.

2.3.3.4 Caribou Zone

The FMA area natural subregion analysis is based on species groups (‘spgp_la’) assigned in the Landscape Assessment Report (Silvacom 1999). This analysis identified area changes in the age structure of forests by eleven 20-year age-classes and canopy species groups for each natural subregion. Table 2.16, Table 2.17, and Figures 2.20-2.23 summarize age-class structure for the Caribou Zone. Ninety-six percent of the Caribou Zone is forested; of this 92.5% is comprised of coniferous stands. The landscape is also relatively old as 65% of the Caribou Zone is comprised of coniferous stands >80 years.

Table 2.16 The summary of the current area, by species groups in the Caribou Zone

Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	7,472	0
21-40	654	834	2,287	127
41-60	394	352	3,801	243
61-80	819	329	34,749	299
81-100	310	212	50,457	444
101-120	293	302	32,154	392
121-140	0	0	9,818	8
141-160	0	0	12,895	0
161-180	0	0	1,485	0
181-200	0	0	4,415	0
201+	0	0	2,552	0
Total	2,471	2,029	162,086	1,513

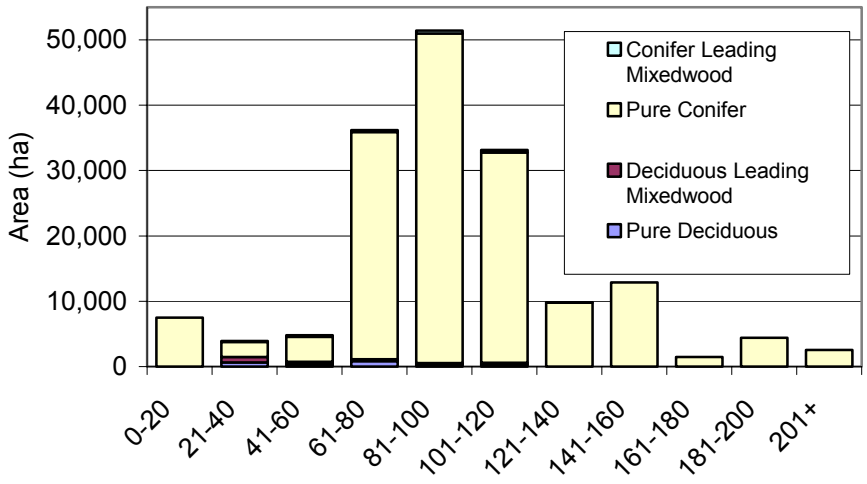

Figure 2.20 Area Summary, by Species Groups, in the Entire Caribou Zone

Table 2.17 Area summary of the Caribou Zone, by species groups

Caribou Zone in Lower Foothills Natural Subregion				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	3,015	0
21-40	342	780	751	60
41-60	65	68	1,590	162
61-80	64	66	853	56
81-100	80	147	1,829	111
101-120	118	200	2,877	278
121-140	0	0	801	0
141-160	0	0	259	0
161-180	0	0	93	0
181-200	0	0	29	0
201+	0	0	0	0
Total	670	1,260	12,097	667

Caribou Zone in Upper Foothills Natural Subregion				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	4,434	0
21-40	312	54	1,519	67
41-60	329	284	2,205	81
61-80	755	264	33,587	242
81-100	230	65	47,877	333
101-120	175	102	27,742	114
121-140	0	0	7,112	8
141-160	0	0	5,533	0
161-180	0	0	1,033	0
181-200	0	0	3,514	0
201+	0	0	1,676	0
Total	1,801	769	136,232	845

Caribou Zone in Subalpine Natural Subregion				
Age class (yrs)	Pure Deciduous	Deciduous Leading Mixedwood	Pure Conifer	Conifer Leading Mixedwood
0-20	0	0	23	0
21-40	0	0	17	0
41-60	0	0	6	0
61-80	0	0	309	0
81-100	0	0	752	0
101-120	0	0	1,535	0
121-140	0	0	1,906	0
141-160	0	0	7,103	0
161-180	0	0	359	0
181-200	0	0	872	0
201+	0	0	875	0
Total	0	0	13,758	0

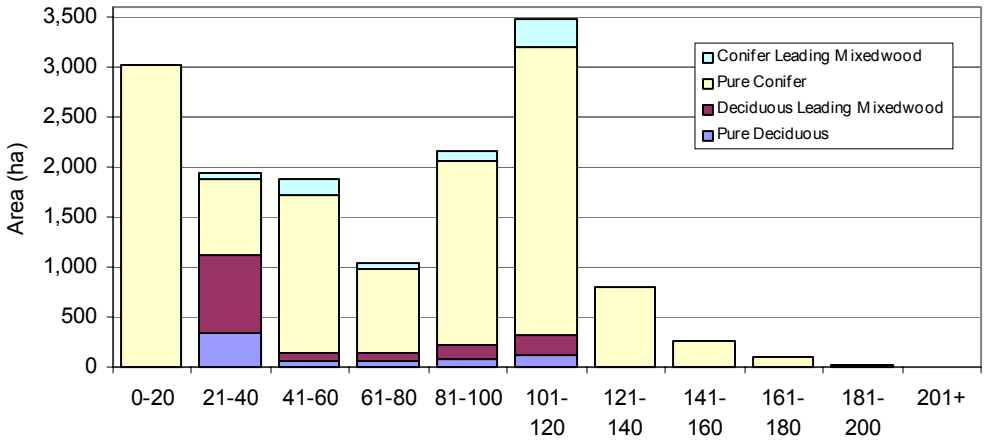

Figure 2.21 Caribou Zone Area Summary in Lower Foothills NSR

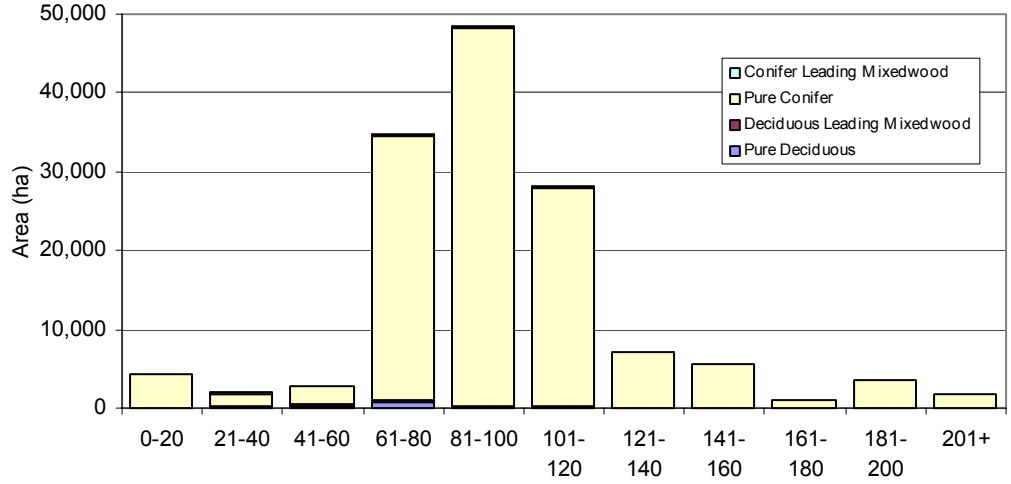

Figure 2.22 Caribou Zone Area Summary in Upper Foothills NSR

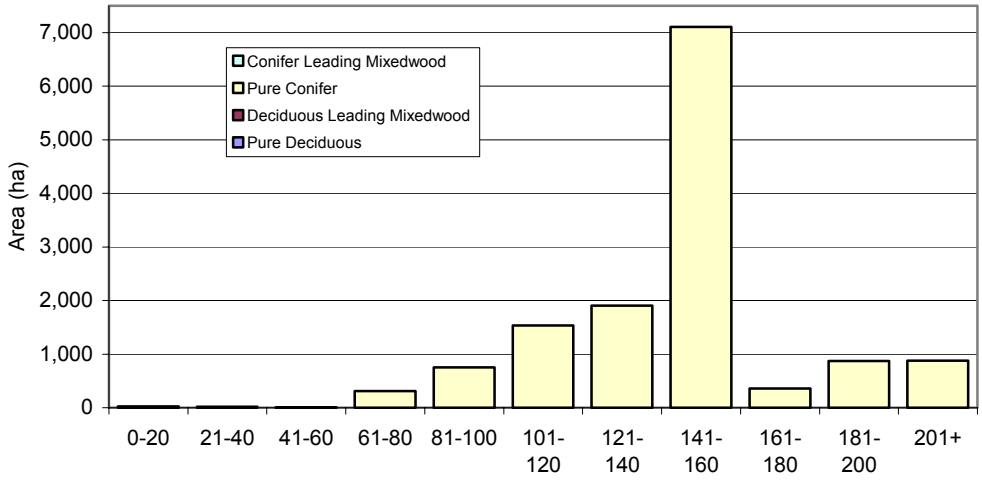

Figure 2.23 Caribou Zone Area Summary in Subalpine NSR

A significant part of the FMA area contains the Caribou Zone, which comprises 168,099 ha (47%) of the total forested landbase. Within the FMA area, the Caribou zone extends across all natural subregions except the Central Mixedwood NSR. Pure deciduous (D) and deciduous leading mixedwood (DC) canopy groups cover 4,500 ha (3%) of the Caribou zone. The deciduous stand component of the Caribou Zone is rather young because currently neither pure deciduous or deciduous leading mixedwoods stands are older than 120 years. Within these two deciduous forest species groups, the age-class distribution remains rather even among the first six 20-year age-classes except for the first class (0–20 years).

The combination of pure conifer (C) and conifer leading mixedwood forests (CD) are the most common species groups in the Caribou Zone. The conifer groups dominate landscape and they account for over 163,599 ha (97%) of the FMA area. But, within the conifer stands, only 1,513 ha (1%) are in the conifer leading mixedwood forests. Other forest areas consist of pure conifer stands. Pure conifer stands are represented in every age-class, but conifer leading mixedwoods are not. The majority of conifer leading mixedwood areas are between the second and sixth age-classes (i.e., 21 and 120 years old). In addition, no conifer leading mixedwoods are older than 140 years. Within the pure conifer and conifer leading mixedwoods, the most represented is the 81 to 100 year age-class, which comprises over 30% of the classified forestland in the Caribou Zone.

Fifty-two percent of the ANC FMA area is comprised of coniferous understorey, while 42% of the FMA area has no understorey, not including non-forested areas. The landbase containing deciduous and mixedwood understorey components only comprise 3% of the ANC FMA area.

2.3.3.5. Vertical Structure

Figure 2.24 depicts the location of understorey (as a proxy for vertical structure) by species group across the FMA area. A matrix depicting the area in each combination of overstorey and understorey species group is presented (Tables 2.18 and 2.19) for the entire FMA area and the Caribou Zone. Understorey species group was derived from AVI understorey stand attributes