

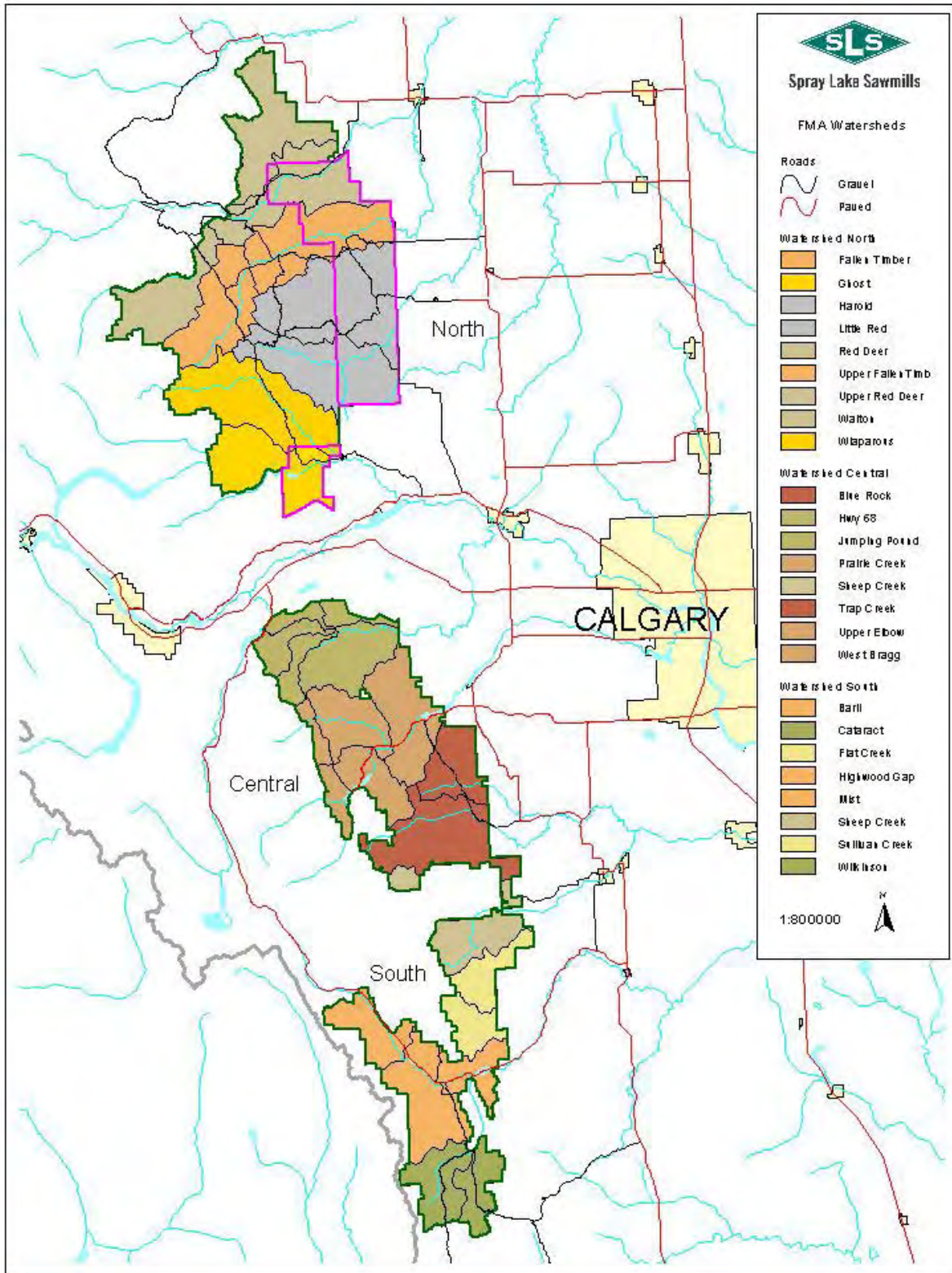
of changes in aquatic resources over time, and to make recommendations for future monitoring programs. To meet the overall objectives, biological diversity of benthic macroinvertebrates, presence or absence of sport fish, stream habitat measurements and stream classification, and temporal patterns in selected physicochemical characteristics of surface water data were collected, analyzed, and where appropriate compared.

### *Fish*

Given the variability and number of streams within Spray Lake Sawmills harvest planning area, a wide range of fish species could potentially be present during part or all of a year. The most likely sport fish found in this area could include rocky mountain whitefish (*Prosopium williamsoni* - Girard), brook trout (*Salvelinus fontinalis* - Mitchill), brown trout (*Salmo trutta* - Linnaeus), bull trout (*Salvelinus confluentus* - Suckley), rainbow trout (*Oncorhynchus mykiss* - Walbaum), cutthroat trout (*Oncorhynchus clarki* - Richardson) and burbot (*Lota lota* - Linnaeus). Numerous other non-sport fish species will also be present.

Spray Lake Sawmills collected sport fish information from 12 streams (Fish Creek, Fisher Creek, McLean Creek, Quirk Creek, Silvester Creek, Prairie Creek, Etherington Creek, Lost Creek, Wilkinson Creek, Cataract Creek, McPhail Creek, and Baril Creek) within their planning area (Wicklum and Scrimgeour 1997; and Townsend 2000a, 2000b, 2001a, 2001b, 2002a, 2002b, 2003a, 2003b, 2004a, and 2004b). Sport fish identified in these studies include brook trout (*Salvelinus fontinalis* - Mitchill), bull trout (*Salvelinus confluentus* - Suckley), rainbow trout (*Oncorhynchus mykiss* - Walbaum), and cutthroat trout (*Oncorhynchus clarki* - Richardson).

Figure 2.21



## 2.19 Forest Health

Forest health is a term used to describe the condition of a forest and how well the forest is able to meet management objectives. Healthy forests provide for many of society's social, economic and environmental values. (ASRD, 2003) The focus of this section is on the health of the trees in terms of insects and diseases and on the health of the vegetation in terms of invasive/noxious plant species.

Insects and diseases can affect trees by causing mortality or significantly reducing tree growth. Forest pests in Alberta are grouped into five categories according to the *Alberta Forest Health Strategy and Shared Roles and Responsibilities Between SRD and the Forest Industry – SRD 2003*. These categories are:

- Category A – Pests federally regulated under the Plant Protection Act
- Category B – Pests that can kill a tree within a year
- Category C – Major Defoliators
- Category D – Pests that cause chronic diseases and disorders
- Category E – Pests of young trees

The primary agents in the FMA are:

- Mountain Pine Beetle (Category B) - This is a very destructive beetle that bores through the bark of mature pine trees in the late summer or early fall establishing itself under the bark resulting in the rapid death (within 1 year) of the tree. The Mountain Pine beetle, once established, is very difficult to control and can devastate the forest. Lumber quality is also affected due to subsequent development of blue stain in the wood.
- Dwarf Mistletoe (Category D) - It is a parasitic plant that causes branches to swell and deform. Sometimes this results in masses of foliar growth called "witches brooms" at the point of infection. This plant can severely reduce tree growth and will eventually kill the tree.
- Western Gall Rust (Category E) - Is a fungus that causes a localized swelling "gall" to develop on the branches and stems of pine trees. These galls can vary in size. Stem galls are more crucial to the survival of the tree than branch galls.
- Armillaria Root Rot (Category D) - Trees infested with this fungus may not show external symptoms. A fan shaped mass of fungal hyphae may be present under the bark on the upper part of the roots or the lower stem. Dying trees will have needles dropping off - in pine the needles turn yellow then red, in spruce the needles will turn dull green. The disease usually kills trees in irregular patches. Patches grow bigger over time.
- Atropellis Canker of Pine (Category D) - This fungus causes sunken elongated scars on the stem of the tree. These cankers will have sap bleeding from them and will be spread throughout the stand. They cause a blue-black discolouration of the wood and can lead to poor stem form or breakage.

Invasive weeds can alter the ecosystem's natural processes and displace native vegetation. For these reasons, forest companies are expected to assist in managing weeds in the forested area of Alberta. (ASRD 2001) Restricted or noxious weeds are listed in the Alberta Weed Regulation and include plants such as knapweed (various species), Canada thistle, scentless chamomile and tall buttercup.

## 2.20 Other Industrial Users

The area covered by the FMA has a long-standing history of timber harvesting, which includes SLS activity dating back to 1943. The FMA is also used by a number of different industrial

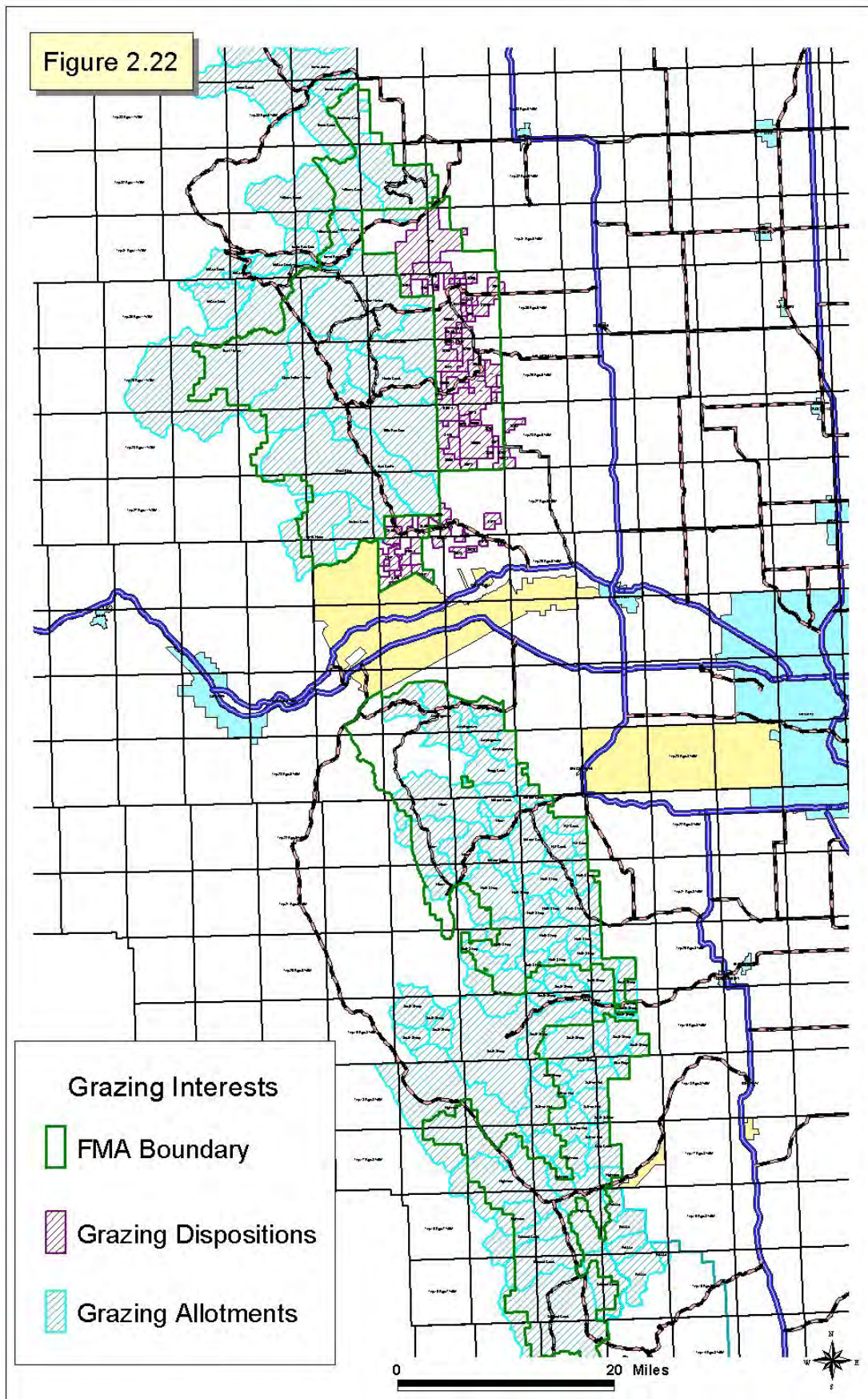
users as defined and managed under the Integrated Resource Plans. They include other timber harvesting operations (Community Timber Use Program), trapping, grazing and the energy/utility industry.

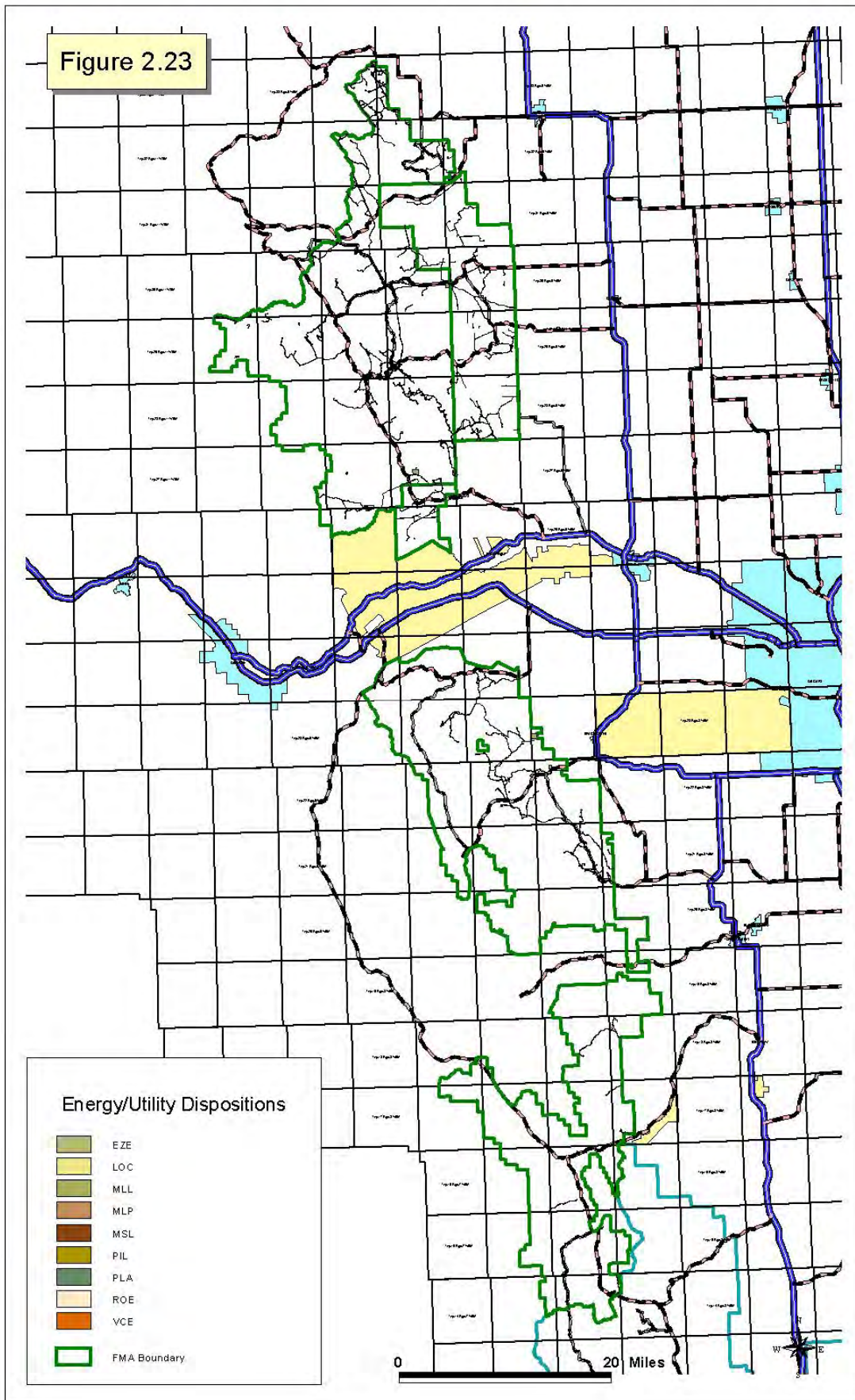
A fixed volume of 36,100m<sup>3</sup> annually is available to the Community Timber Program under the terms of the FMA. The Community Timber Program includes 5 small quota holders (converted from commercial timber permit holders since 2004 DFMP submission), 1 commercial timber permit holder and the "Open" category administered by SRD. Sundre Forest Products has the rights to 15,000m<sup>3</sup> annually of deciduous timber and the crown reserves the right to an additional 500m<sup>3</sup> per year of deciduous timber.

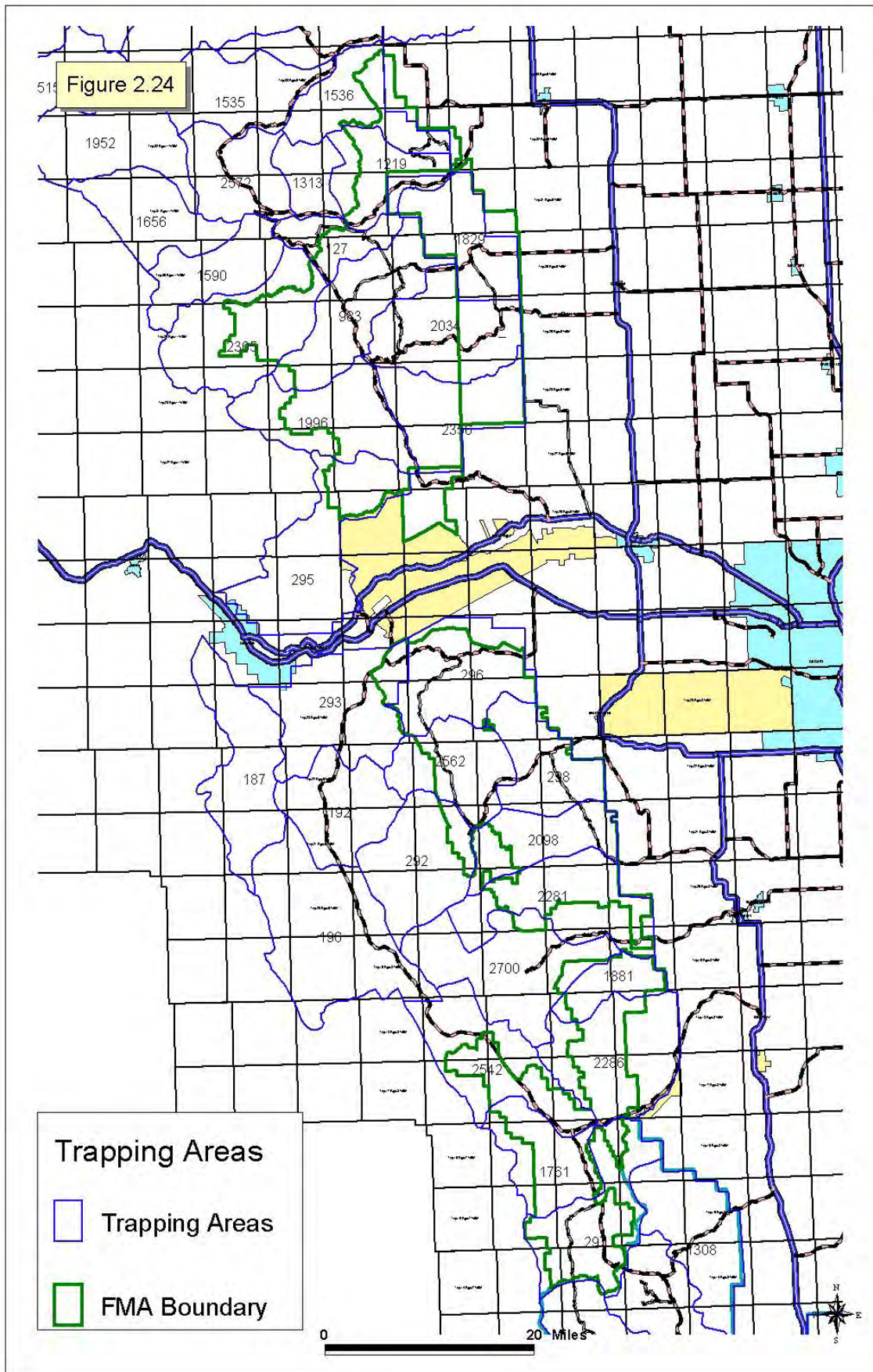
Livestock grazing and fur trapping are historical uses of the FMA/B9 Quota area. The majority of the FMA is covered by Registered Traplines and by some kind of grazing allocation including grazing licences, grazing leases and grazing allotments.

Energy activity is throughout the FMA with on-going exploration and development activities.

Following are small scale maps of the areas of interest of the other industrial users. SLS maintains digital data files that can be viewed and used at larger scales in its operational planning.







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**APPENDIX 2.1**

**Ecological Attributes and Land Areas of Ecosections Mapped in Spray Lakes South FMA**

Natural Subregion	Ecosection	Land Area (ha)	Vegetation Cover	Parent Material
		B10 FMU		
Foothills Parkland	4F1	54	Grassland, Deciduous Forest, Deciduous Shrub	Fluvial
	4G1	475	Grassland w/ Deciduous Groves	Glaciofluvial
	4G2	166	Grassland w/ Deciduous Groves	Glaciofluvial
	4M1	328	Grassland, Open and Closed Deciduous Forest	Morainal
	4M2	144	Grassland, Open and Closed Deciduous Forest	Morainal
Montane	5C1	267	Closed Mixedwood Forest	Colluvial
	5C2	3526	Grassland, Open Coniferous Forest	Colluvial
	5CM2	165	Closed Mixedwood Forest	Colluvial & Morainal
	5D3	1	Disturbed/Reclaimed Vegetation	Anthropogenic (Disturbed)
	5F1	137	Grassland, Riparian Shrub	Fluvial
	5F3	5	Low Riparian Shrub, Open Coniferous Forest	Fluvial
	5GF1	1502	Open and Closed Mixedwood Forest, Grassland	Glaciofluvial
	5M1	660	Open and Closed Mixedwood Forest, Grassland	Morainal
	5M2	479	Closed Mixedwood Forest, Grassland	Morainal
	5M3	54	Closed Mixedwood Forest	Morainal
	5MG2	280	Open Coniferous Forest and Mixedwood Forest	Morainal & Glaciofluvial
Subalpine	6C1	11949	Closed Coniferous Forest	Colluvial
	6C2	8028	Closed and Open Coniferous Forest	Colluvial
	6C3	4156	Closed and Open Coniferous Forest, Grassland	Colluvial
	6C4	13118	Closed Coniferous Forest	Colluvial
	6C5	3315	Closed Coniferous Forest	Colluvial
	6C6	438	Closed Coniferous Forest, Coniferous/Deciduous Shrub	Colluvial
	6C7	44	Closed and Open Coniferous Forest	Colluvial
	6C8	703	Open Coniferous Forest	Colluvial
	6C9	9196	Closed Coniferous Forest	Colluvial
	6C10	4074	Closed and Open Coniferous Forest, Grassland	Colluvial
	6C11	1	Closed and Open Coniferous Forest, Grassland	Colluvial

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### Ecological Attributes and Land Areas of Ecosections Mapped in Spray Lakes South FMA

Natural Subregion	Ecosection	Land Area (ha)	Vegetation Cover	Parent Material
		B10 FMU		
	6CM1	6512	Closed and Open Coniferous Forest	Colluvial & Morainal
	6CM2	7912	Closed Coniferous Forest	Colluvial & Morainal
	6CM3	2666	Closed and Open Coniferous Forest	Colluvial & Morainal
	6CR1	1764	Open Coniferous Forest and Bare Rock	Colluvial & Bedrock
	6CR2	1166	Open and Closed Coniferous Forest	Colluvial & Bedrock
	6CX1	4022	Coniferous Forest and Low Shrub	Colluvial & Residual
	6F1	1038	Coniferous Forest and Riparian Shrub	Fluvial
	6F2	3194	Coniferous Forest and Riparian Shrub	Fluvial
	6F3	1160	Coniferous Forest and Riparian Shrub	Fluvial
	6F4	1089	Coniferous Forest, Riparian Shrub and Bare Rock	Fluvial
	6F5	526	Cobbly Floodplain, Sparse vegetation	Fluvial
	6G1	576	Closed Coniferous Forest	Glaciofluvial
	6G2	90	Grassland	Glaciofluvial
	6G3	642	Grassland, Low Shrub, Open Coniferous Forest	Glaciofluvial
	6LF1	653	Deciduous Shrub	Lacustrine & Fluvial
	6M1	6323	Closed Coniferous Forest	Morainal
	6M2	8627	Closed Coniferous Forest	Morainal
	6M3	1922	Closed Coniferous Forest	Morainal
	6MC1	4217	Closed and Open Coniferous Forest	Morainal & Colluvial
	6MC2	1864	Closed Coniferous Forest	Morainal & Colluvial
	6MC3	2297	Closed and Open Coniferous Forest	Morainal & Colluvial
	6MF1	1612	Coniferous Forest, Low Shrub and Grassland	Morainal & Fluvial
	6MH1	7	Closed and Open Coniferous Forest	Hummocky Morainal
	6MH2	164	Closed Coniferous Forest	Hummocky Morainal
	6ML1	538	Closed Coniferous Forest, Medium and Tall Shrub	Morainal & Lacustrine
	6X1	733	Closed Coniferous Forest	Residual

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**Ecological Attributes and Land Areas of Ecosections Mapped in Spray Lakes South FMA**

Natural Subregion	Ecosection	Land Area (ha)	Vegetation Cover	Parent Material
		B10 FMU		
Alpine	7C3	101	Unvegetated	Colluvial
	7CR1	2441	Very Sparse Grasses	Colluvial & Bedrock
	7CR2	800	Grassland and Low Shrub	Colluvial & Bedrock
	7CX1	1841	Low Shrubs	Colluvial & Residual
	7R1	14	Unvegetated	Bedrock
	7RC1	2	Unvegetated	Bedrock & Colluvial
	7XC1	297	Low Shrubs	Residual & Colluvial
	Lower Foothills	9F1	273	Deciduous Shrub
9F2		483	Grassland, Closed Mixedwood Forest	Fluvial
9F3		919	Open Mixedwood Forest, Riparian Shrub	Fluvial
9F4		74	Cobbly Floodplain, Sparse Vegetation	Fluvial
9G1		2236	Closed Mixedwood and Coniferous Forest	Glaciofluvial
9G2		495	Closed Deciduous Forest and Grassland	Glaciofluvial
9LF1		1464	Deciduous Shrub	
9M1		1994	Grassland and Closed Mixedwood Forest	Morainal
9M2		6225	Closed Coniferous Forest	Morainal
9MC1		2971	Grassland, Open and Closed Deciduous and Mixedwood Forest	Morainal & Colluvial
9MC2		1501	Closed Mixedwood Forest	Morainal & Colluvial
9MC3		13725	Grassland, Open and Closed Deciduous and Mixedwood Forest	Morainal & Colluvial
9MH1		309	Closed Coniferous Forest	Hummocky Morainal
9ML1		315	Grassland, Deciduous Shrub	Morainal & Lacustrine
9ML2	487	Closed Coniferous Forest	Morainal & Lacustrine	







**APPENDIX 2.2**  
**Frequency, Area and Regional Context of Wildlife Habitat Types**  
**in the Spray Lakes South FMA.**

UHG2/1	Grassland	N/A	1600 - 2200	Flat	0 - 15%	351	504.6	745	1.5	0.01	88.3	Common
UHG2/2	Grassland	N/A	1600 - 2200	SW	>15%	946	3273.8	1883	3.6	0.01	154.1	Abundant
UHG2/3	Grassland	N/A	1600 - 2200	NE	>15%	883	1960.0	1773	2.8	0.01	250.0	Abundant
UHG3/1	Grassland	N/A	>2200	Flat	0 - 15%	18	20.0	103	6.4	0.02	111.3	Scarce
UHG3/2	Grassland	N/A	>2200	SW	>15%	70	221.5	329	5.2	0.01	122.1	Common
UHG3/3	Grassland	N/A	>2200	NE	>15%	86	258.4	308	4.4	0.02	127.7	Common
USL1	Shrub Meadow	N/A	<1600	Flat	0 - 15%	90	471.8	208	4.5	0.02	95.4	Common
USL2	Shrub Meadow	N/A	1600 - 1900	Flat	0 - 15%	155	594.7	313	4.1	0.01	105.5	Common
USL3	Shrub Meadow	N/A	>1900	Flat	0 - 15%	16	20.3	271	1.9	0.02	44.1	Scarce
USM1	Shrub Meadow	N/A	<1600	SW	15 - 45%	103	111.9	211	1.5	0.02	32.1	Uncommon
USM2	Shrub Meadow	N/A	1600 - 1900	SW	15 - 45%	258	330.8	530	1.2	0.01	20.7	Common
USM3	Shrub Meadow	N/A	>1900	SW	15 - 45%	52	70.3	636	1.4	0.01	38.6	Scarce
USM4	Shrub Meadow	N/A	<1600	NE	15 - 45%	55	44.2	164	0.8	0.02	7.0	Scarce
USM5	Shrub Meadow	N/A	1600 - 1900	NE	15 - 45%	225	221.6	531	1.2	0.01	35.4	Common
USM6	Shrub Meadow	N/A	>1900	NE	15 - 45%	77	74.2	693	1.4	0.01	51.9	Scarce
USS1	Shrub Meadow	N/A	<1600	SW	>45%	27	35.2	53	1.2	0.02	7.9	Scarce
USS2	Shrub Meadow	N/A	1600 - 1900	SW	>45%	106	163.1	238	1.4	0.02	20.7	Uncommon
USS3	Shrub Meadow	N/A	>1900	SW	>45%	42	40.8	510	1.9	0.02	93.6	Scarce
USS4	Shrub Meadow	N/A	<1600	NE	>45%	13	7.9	38	0.8	0.02	3.8	Rare
USS5	Shrub Meadow	N/A	1600 - 1900	NE	>45%	68	95.2	231	1.4	0.02	28.8	Uncommon
USS6	Shrub Meadow	N/A	>1900	NE	>45%	73	116.1	589	2.2	0.01	47.0	Uncommon
W1.1/1	Treed Wetland	N/A	<1600	Flat	0 - 15%	77	490.7	95	6.9	0.02	59.1	Common
W1.1/2	Treed Wetland	N/A	>1600	Flat	0 - 15%	70	166.8	113	3.6	0.01	31.5	Uncommon
W1.1/3	Treed Wetland	N/A	<1600	All	>15%	73	85.2	90	1.1	0.01	8.3	Uncommon
W1.1/4	Treed Wetland	N/A	>1600	All	>15%	82	108.6	148	1.2	0.02	8.8	Uncommon
W1.2/1	Shrub Wetland	N/A	<1600	Flat	0 - 15%	178	1574.8	213	8.5	0.01	100.2	Abundant
W1.2/2	Shrub Wetland	N/A	>1600	Flat	0 - 15%	119	745.5	217	5.9	0.02	164.6	Abundant
W1.2/3	Shrub Wetland	N/A	<1600	All	>15%	242	201.8	266	0.9	0.02	13.9	Uncommon
W1.2/4	Shrub Wetland	N/A	>1600	All	>15%	195	287.9	323	1.5	0.01	29.5	Common
W1.3/1	Wet Graminoid	N/A	<1600	Flat	0 - 15%	52	218.4	77	3.8	0.01	23.4	Uncommon
W1.3/2	Wet Graminoid	N/A	>1600	Flat	0 - 15%	74	312.6	166	3.5	0.01	43.4	Common
W1.3/3	Wet Graminoid	N/A	<1600	All	>15%	64	45.9	88	0.8	0.02	5.9	Scarce
W1.3/4	Wet Graminoid	N/A	>1600	All	>15%	95	115.2	176	1.3	0.02	17.7	Uncommon
W2.1	Rivers	N/A	All	All	All	3	4.3	16	17.4	0.05	87.8	Rare
W2.2	Lakes/Ponds	N/A	All	All	All	15	34.6	124	33.6	0.03	1941.7	Scarce
W2.3	Flooded	N/A	All	All	All	29	119.8	58	3.7	0.25	16.1	Uncommon

**APPENDIX 2.3.**

**Ecological Attributes of Ecoregions mapped in the SLS North FMA.**

<b>Standardized Ecoregion</b>	<b>Landform and Topography</b>	<b>Parent Material<sup>1</sup></b>	<b>Slope (%)</b>	<b>Vegetation Description<sup>2</sup></b>
B.C1a	Thin residuum and colluvium overlying very steep foothill-ridge topography	X; C	30-70	Closed Aw forest/hairy wild rye; herbaceous grassland (june grass/juniper)
B.F1b	Steeply sloping, V-shaped gullies with narrow floodplains	F	0-100	Closed Sw-PI forest; closed Sw-Aw forest; closed Pb-Sw forest
B.F2b	Small low gradient streams with narrow floodplains; some meandering channels	F; Q	0-30	Open Aw forest; willow shrubland
B.F2c	Small low gradient streams with narrow floodplains; some meandering channels	F; Q	0-30	Willow or Bd shrubland; Cx; (PI)
B.F3b	Large foothills or mountain originated rivers with well developed floodplains	F	0-70	Closed Pb-Sw (Sw-Pb) forest; willow shrubland
B.F5a	Small permanent streams with broad organic floodplains and very convoluted stream channels	F	0-5	Willow-Bd shrubland; open Sb forest; fen (Lt)
B.GF2b	Glaciofluvial terraces formed in valley bottoms	GF	0-30	Closed Sw-Pb forest; willow and Bd shrublands
B.GF3a	Flat glaciofluvial outwash plain	GF	0-5	Closed Sw dominated forest/feathermoss/lichen; open Sw-Pb forest/willow/grass
B.L1c	Gently undulating to gently rolling plain	L	0.5-30	Closed Aw-Sw forest; closed
B.L2b	Gently undulating to undulating blankets or glaciolacustrine clay and silt deposits over till	L; M	0.5-30	Closed Aw dominated forest/rose; Willow shrubland
B.L3b	Glaciolacustrine blankets/veneers over till with significant organic deposits	L; Q	2-15	Closed Aw forest; willow- Bd shrublands
B.M2b	Moderately sloped bedrock controlled ground moraine	M	5-70	Closed Aw-PI forest

**APPENDIX 2.3.**

**Ecological Attributes of Ecoregions mapped in the SLS North FMA.**

<b>Standardized Ecoregion</b>	<b>Landform and Topography</b>	<b>Parent Material<sup>1</sup></b>	<b>Slope (%)</b>	<b>Vegetation Description<sup>2</sup></b>
B.M3c	Bedrock controlled ground moraine with slight to moderate slopes; generally rolling to inclined	M	6-30	Closed Aw, Aw-Sw or Sw-Aw forest
B.M4a	Bedrock controlled ground moraine; generally undulating to rolling	M; E/M	0-45	Closed PI dominated forest
B.M4c	Bedrock controlled ground moraine; generally undulating to rolling	M; E/M	0-45	Closed or partially closed Aw-PI forest
B.M5b	Morainal and colluvial or residual veneers over bedrock	M; X; C	6-45	Closed Aw forest
B.M7a	Glaciofluvial channels cut in morainal materials	M; GF	6-30	Closed PI dominated forest
B.M8a	Till deposits with significant organic component	M; Q	0-20	Closed PI dominated forest; fens (Bd; Lt); bogs (Sb)
B.M8b	Till deposits with significant organic component	M; Q	0-20	Closed PI-Sw or Sw-PI forest; fens (Bd; Lt); bogs (Sb)
B.M8c	Till deposits with significant organic component	M; Q	0-20	Closed Sw dominated forest; willow shrublands; fens (Bd)
B.Q1b	Depressional to undulating organic	Q	0-5	Bogs (Sb; Sb-W)
B.Q1d	Depressional to undulating organic	Q	0-5	Open deciduous shrub meadows (Bd-Cx; Bd-W; W-Bd)
B.Q2a	Glaciofluvial deposits with significant organic component	Q	0-9	Open deciduous shrub meadows (Bd-W)
C.R1a	Exposed, weathered bedrock on mountain peaks and steep slopes	R	45-100+	Cx dominated grassland
G.C2a	Steeply inclined outwash colluvium	C	45-100	Open deciduous shrubland (juniper)
G.F1b	Steeply sloping, V-shaped gullies with narrow floodplains	F	16-100	Non-vegetated; closed Sw forest; closed PI forest
G.F2c	Small low gradient streams with narrow floodplains; some meandering channels	F; GF	0-10	Willow shrubland; silverberry shrubland

**APPENDIX 2.3.**

**Ecological Attributes of Ecoregions mapped in the SLS North FMA.**

<b>Standardized Ecoregion</b>	<b>Landform and Topography</b>	<b>Parent Material<sup>1</sup></b>	<b>Slope (%)</b>	<b>Vegetation Description<sup>2</sup></b>
G.F3c	Fluvial terraces and fans	F	0-10	Open Sb forest; willow shrubland
G.GF1a	Glaciofluvial terrace	GF	0-5	Partially closed PI forest
G.GF1b	Glaciofluvial terrace	GF	0-5	Herbaceous grassland
G.M1a	Ground moraine; hummocky to rolling	M; E	5-30	Closed or partially closed PI forest; herbaceous grassland
G.M1c	Ground moraine; hummocky to rolling	M; E	5-30	Partially closed Aw-PI forest
G.M5a	Steep foothills morainal deposits	M; X	16-100	Closed to partially closed PI forest
G.M6a	Shallow organic-ground moraine	Q; M	0-9	Partially closed Aw-PI forest; willow shrubland
G.Q1a	Shallow organic	Q	0-2	Open Bd shrubland; herbaceous grasslands (Cx)
R.C2a	Moderately sloped colluvium	C	0-60	Closed PI forest; open Sw forest
R.C2b	Moderately sloped colluvium	C	0-60	Closed Se-Fa forest
R.C2c	Moderately sloped colluvium	C	0-60	Herbaceous grassland (Cx); willow
R.GF2b	Gently sloping glaciofluvial terrace	GF; F	2-9	Closed PI forest; shrubland (Bd)
R.M1a	Bedrock controlled ground moraine with slight to moderate slopes; hummocky to rolling to inclined	M	2-30	Partially to closed PI forest; closed PI-Se forest; closed PI-Sw forest
S.F1d	Steeply sloping, V-shaped gullies with narrow floodplains	F	0-100	Open deciduous shrubland (W or Bd)
S.F2a	Small low gradient streams with well developed floodplains; meandering channels	F; Q; F/GF	0-9	Closed Sw forest; Deciduous shrubland (Bd)
S.F2c	Small low gradient streams with well developed floodplains; meandering channels	F; Q; F/GF	0-9	Deciduous shrubland (W, W-Bd, W-Cx or Bd-Cx)
S.GF2c	Glaciofluvial terraces	GF	0-10	Herbaceous shrub meadow (W); herbaceous grassland

### APPENDIX 2.3.

#### Ecological Attributes of Ecoregions mapped in the SLS North FMA.

Standardized Ecoregion	Landform and Topography	Parent Material <sup>1</sup>	Slope (%)	Vegetation Description <sup>2</sup>
S.M13a	Moderately sloping morainal material with a fluvial or glaciofluvial component	M; F; F/M; GF	5-45	Closed PI or PI dominated forest; open deciduous shrubland
S.M14b	Gently sloping till with a significant organic component	M; Q; O/M; O	0-20	Closed PI-Sw or Sw-PI forest; bogs (Sb); fens (Bd-Cx or Lt)
S.M1a	Slightly to moderately sloped bedrock controlled ground moraine; generally undulating to rolling	M	0-30	Partially closed to closed PI forest
S.M2a	Moderately sloped bedrock controlled ground moraine; inclined	M	5-60	Closed PI-Sw or Sw-PI forest
S.M3a	Very gently-sloping till plain on an elevated plateau	M	2-5	Closed PI forest
S.M8a	Till and colluvial material on very steep bedrock controlled valley and ridge walls	M; C	31-75	Closed Sw-pl forest
S.M9a	Moderate to steeply sloped foothills with a residual component	M; X	16-100	Partially closed PI forest
S.Q1c	Depressional to undulating organic	Q; F; M	0-9	Open deciduous shrub meadow (fens) (Bd-Cx; Cx-Bd)
S.Q1d	Depressional to undulating organic	Q; F; M	0-9	Open deciduous shrub meadow (fens) (Bd-W; W-Bd)

INFORMATION SOURCE: Geographic Dynamics Corp. 2002. Standardization Between ELC Study Areas for the Sunpine Forest Products Ltd. Regional Area.

<sup>1</sup> Parental Material: Colluvial (C); Eolian (E); Fluvial (F); Glaciofluvial (GF); Lacustrine (L); Morainal (M); Organic (Q); Bedrock (R); Residual (X).

<sup>2</sup> Plant Species: Aspen (Aw); Balsam poplar (Pb); Black spruce (Sb); Engelmann spruce (Se); Lodgepole pine (PI); Subalpine fir (Fa); Tamarack (Lt); White spruce (Sw); Willow (W); Sedges (Cx); Dwarf Birch (Bd).

Appendix 2.4 - North FMA Wildlife Habitat Units

Vegetation Cover Type	Wildlife Habitat Unit (WHU)	Patch Size					Relative Abundance
		Total Land Area (ha)	# Polygons	Mean(ha)	Min(ha)	Max(ha)	
Lodgepole Pine - Aspen	LF(f)-PLc-ms(m)	0.0024	1	0.0024	0.0024	0.0024	rare
Dry Graminoid	SA(f)-GR(d)	0.0168	2	0.0084	0.0000	0.0167	rare
Balsam Poplar	LF(f)-PBc-ms(w)	0.0176	1	0.0176	0.0176	0.0176	rare
Tamarack Fen	UF(f)-LTc(w)	0.0294	1	0.0294	0.0294	0.0294	rare
Aspen	LF(f)-AWc-ms(d)	0.0303	2	0.0151	0.0014	0.0289	rare
Treed Clearcut	LF(f)-CC3-PL-AWI(m)-sel	0.0558	1	0.0558	0.0558	0.0558	rare
Sand	UF(f)-SD	0.0620	3	0.0207	0.0000	0.0619	rare
Lodgepole Pine - Black Spruce	LF(f)-PL-MXc-ms(w)	0.0631	2	0.0315	0.0108	0.0522	rare
Pine (Undifferentiated) - White Spruce	M(f)-PL-MXo-ms(m)	0.0710	1	0.0710	0.0710	0.0710	rare
Aspen	UF(s)-AWo-ms(m)	0.0832	1	0.0832	0.0832	0.0832	rare
Lodgepole Pine	UF(f)-PLo-ms(d)	0.1033	1	0.1033	0.1033	0.1033	rare
White Spruce - Lodgepole Pine	UF(f)-SW-MXo-ms(d)	0.1224	1	0.1224	0.1224	0.1224	rare
Engelmann Spruce	SA(n)-SEo-ms(m)	0.2262	2	0.1131	0.0001	0.2261	rare
Engelmann Spruce	UF(f)-SEo-og(w)	0.2307	1	0.2307	0.2307	0.2307	rare
Treed Clearcut	UF(f)-CC3-AWt(m)	0.2445	1	0.2445	0.2445	0.2445	rare
Treed Clearcut	M(f)-CC3-SW-AWt(m)-sel	0.2648	2	0.1324	0.0001	0.2647	rare
Engelmann Spruce	LF(f)-SEo-ms(w)	0.2889	3	0.0963	0.0026	0.2680	rare
Lodgepole Pine	SA(f)-PLo-ms(d)	0.3195	15	0.0213	0.0000	0.0944	rare
Shrub / Sapling Clearcut	LF(f)-CC2-SOt(m)	0.3367	1	0.3367	0.3367	0.3367	rare
Aspen - White Spruce	UF(f)-AW-SWc-og(m)	0.3572	1	0.3572	0.3572	0.3572	rare
Engelmann Spruce - Subalpine Fir	UF(s)-SE-FAc-ms(m)	0.4408	2	0.2204	0.0181	0.4228	rare
Wet Graminoid	UF(n)-GR(w)	0.4498	1	0.4498	0.4498	0.4498	rare
Aquatic River	MF(n)-RV	0.4707	1	0.4707	0.4707	0.4707	rare
Engelmann Spruce - Aspen	LF(s)-SE-AWc-ms(m)	0.4838	1	0.4838	0.4838	0.4838	rare
Engelmann Spruce - White Spruce	UF(n)-SE-FAc-ms(m)	0.4871	1	0.4871	0.4871	0.4871	rare
Aspen	M(s)-AWc-og(m)	0.5229	1	0.5229	0.5229	0.5229	rare
Balsam Poplar - White Spruce	M(f)-PB-SWc-ms(m)	0.5291	1	0.5291	0.5291	0.5291	rare
Aspen - Engelmann Spruce	M(s)-AW-SEo-ms(m)	0.5331	1	0.5331	0.5331	0.5331	rare
Engelmann Spruce	UF(f)-SEc-og(m)	0.5686	2	0.2843	0.1758	0.3928	rare
Balsam Poplar	M(s)-PBc-ms(w)	0.6027	1	0.6027	0.6027	0.6027	rare
Aspen - Pine (Undifferentiated)	M(s)-AW-PLc-ys(m)	0.6624	1	0.6624	0.6624	0.6624	rare
Aspen	UF(f)-AWo-ms(w)	0.6984	1	0.6984	0.6984	0.6984	rare
White Spruce - Lodgepole Pine	UF(n)-SW-MXo-ms(w)	0.7212	1	0.7212	0.7212	0.7212	rare
White Spruce	UF(f)-SWo-ms(d)	0.7537	1	0.7537	0.7537	0.7537	rare
Engelmann Spruce	SA(f)-SEo-ms(m)	0.7835	1	0.7835	0.7835	0.7835	rare
Engelmann Spruce	UF(f)-SEc-ms(w)	0.7881	2	0.3940	0.3617	0.4264	rare
Black Spruce - White Spruce	LF(f)-SB-SWc-ys(w)	0.8031	2	0.4015	0.0067	0.7963	rare
Pine (Undifferentiated) - White Spruce	LF(s)-PL-MXo-ms(m)	0.8133	1	0.8133	0.8133	0.8133	rare
Cutbank	M(n)-CB	0.8238	1	0.8238	0.8238	0.8238	rare
White Spruce - Black Spruce	M(f)-SW-MXo-ys(m)	0.8266	5	0.1653	0.0000	0.8265	rare
Pine (Undifferentiated) - Black Spruce	LF(s)-PL-MXc-ms(m)	0.8562	1	0.8562	0.8562	0.8562	rare

Appendix 2.4 - North FMA Wildlife Habitat Units

Lodgepole Pine - White Spruce	UF(n)-PL-MXc-og(m)	0.8835	2	0.4417	0.2854	0.5981	rare
Black Spruce - Engelmann Spruce	LF(n)-SB-SEc-ms(m)	0.8917	2	0.4458	0.0975	0.7942	rare
Treed Clearing	LF(f)-SW-PBt(m)	0.9204	1	0.9204	0.9204	0.9204	rare
Rock	SA(f)-RB	0.9378	1	0.9378	0.9378	0.9378	rare
Engelmann Spruce	UF(f)-SEo-ms(w)	0.9381	1	0.9381	0.9381	0.9381	rare
Treed Clearing	SA(n)-PLt(m)	0.9433	2	0.4717	0.3409	0.6024	rare
Balsam Poplar	M(s)-PBC-ms(m)	0.9533	1	0.9533	0.9533	0.9533	rare
Treed Clearcut	UF(s)-CC3-PL-MXt(m)-sel	0.9603	1	0.9603	0.9603	0.9603	rare
White Spruce	M(f)-SWo-ys(m)	0.9854	9	0.1095	0.0000	0.9849	rare
Black Spruce	UF(s)-SBc(w)	1.0111	1	1.0111	1.0111	1.0111	rare
Black Spruce - Engelmann Spruce	LF(f)-SB-SEo-ms(w)	1.0199	1	1.0199	1.0199	1.0199	rare
Treed Clearcut	M(s)-PL-AWI(d)	1.0734	1	1.0734	1.0734	1.0734	rare
Black Spruce - Lodgepole Pine	LF(f)-SB-PLc-ms(m)	1.1517	1	1.1517	1.1517	1.1517	rare
Treed Clearcut	UF(n)-CC3-PL-MXt(m)-sel	1.1678	1	1.1678	1.1678	1.1678	rare
Engelmann Spruce - Balsam Fir	UF(n)-SE-FBo-ys(m)	1.1804	1	1.1804	1.1804	1.1804	rare
White Spruce	LF(f)-SWc-ys(w)	1.1912	1	1.1912	1.1912	1.1912	rare
Aspen	M(s)-AWc-ys(m)	1.1928	1	1.1928	1.1928	1.1928	rare
Lodgepole Pine - Engelmann Spruce	UF(n)-PL-MXo-ms(m)	1.2245	1	1.2245	1.2245	1.2245	rare
Lodgepole Pine - Aspen	LF(f)-PL-AWo-ms(w)	1.2522	1	1.2522	1.2522	1.2522	rare
White Spruce - Aspen	LF(n)-SW-AWo-og(m)	1.2767	1	1.2767	1.2767	1.2767	rare
White Spruce	LF(f)-SWo-ys(m)	1.3206	1	1.3206	1.3206	1.3206	rare
Black Spruce - Lodgepole Pine	UF(n)-SB-PLc(m)	1.3380	1	1.3380	1.3380	1.3380	rare
Treed Clearcut	UF(n)-CC3-SB-PLt(m)-sel	1.3494	1	1.3494	1.3494	1.3494	rare
Lodgepole Pine - Aspen	UF(f)-PL-AWo-ms(m)	1.3521	1	1.3521	1.3521	1.3521	rare
Pine (Undifferentiated)	LF(f)-PLc-og(m)	1.3600	1	1.3600	1.3600	1.3600	rare
Annual Cropland	M(s)-CA	1.3684	1	1.3684	1.3684	1.3684	rare
Industrial Facilities	M(s)-AI	1.3807	1	1.3807	1.3807	1.3807	rare
Graminoid Clearcut	M(n)-CC1-GR(m)	1.4016	1	1.4016	1.4016	1.4016	rare
Jackpine	UF(f)-PJc-ms(m)	1.4201	1	1.4201	1.4201	1.4201	rare
Engelmann Spruce - Subalpine Fir	SA(n)-SE-FAo-ms(m)	1.4674	2	0.7337	0.2352	1.2322	rare
White Spruce - Lodgepole Pine	SA(f)-SW-MXo-og(m)	1.4886	1	1.4886	1.4886	1.4886	rare
White Spruce - Lodgepole Pine	LF(f)-SW-MXc-ys(w)	1.5097	1	1.5097	1.5097	1.5097	rare
Poplar (Undifferentiated) - White Spruce	LF(f)-PB-SWc-ms(m)	1.5234	2	0.7617	0.0002	1.5232	rare
White Spruce - Aspen	LF(n)-SW-AWc-ys(m)	1.5635	1	1.5635	1.5635	1.5635	rare
Engelmann Spruce	UF(f)-SEo-ms(m)	1.5729	2	0.7865	0.4914	1.0816	rare
Aquatic Lake	SA(f)-LK	1.5849	2	0.7925	0.7633	0.8216	rare
Engelmann Spruce	UF(f)-SEc-og(w)	1.5940	1	1.5940	1.5940	1.5940	rare
Engelmann Spruce - Lodgepole Pine	LF(f)-SE-PLo-ms(m)	1.6022	1	1.6022	1.6022	1.6022	rare
Lodgepole Pine - White Spruce	UF(f)-PL-MXo-ms(d)	1.6029	1	1.6029	1.6029	1.6029	rare
Black Spruce	LF(n)-SB(w)	1.6197	1	1.6197	1.6197	1.6197	rare
Treed Clearcut	LF(f)-CC3-SWI(m)	1.6330	1	1.6330	1.6330	1.6330	rare
Aspen	LF(n)-AWc-ys(d)	1.6823	1	1.6823	1.6823	1.6823	rare
Lodgepole Pine - White Spruce	M(n)-PL-MXc-ys(m)	1.6868	3	0.5623	0.0000	1.6344	rare

Appendix 2.4 - North FMA Wildlife Habitat Units

Lodgepole Pine	SA(s)-PLo-ms(m)	1.6931	2	0.8466	0.2333	1.4599	rare
Lodgepole Pine - White Spruce	LF(f)-PL-MXc-ys(m)	1.7150	1	1.7150	1.7150	1.7150	rare
White Spruce - Lodgepole Pine	UF(n)-SW-MXc-ys(m)	1.7379	1	1.7379	1.7379	1.7379	rare
Engelmann Spruce - Aspen	LF(s)-SE-AWo-ms(d)	1.7848	1	1.7848	1.7848	1.7848	rare
Bryophytes	UF(f)-BR	1.8218	1	1.8218	1.8218	1.8218	rare
Treed Clearcut	UF(f)-CC3-SW-MXt(m)-sel	1.8346	1	1.8346	1.8346	1.8346	rare
Graminoid Clearing	M(n)-CL-GR(m)	1.8720	1	1.8720	1.8720	1.8720	rare
Engelmann Spruce - Aspen	LF(n)-SE-AWc-og(m)	1.8732	2	0.9366	0.2617	1.6116	rare
Lodgepole Pine - Aspen	LF(n)-PL-AWc-og(m)	1.8836	1	1.8836	1.8836	1.8836	rare
Lodgepole Pine - Black Spruce	LF(n)-PL-MXc-ms(m)	1.9202	1	1.9202	1.9202	1.9202	rare
Graminoid Clearcut	LF(f)-CC1-GR(d)	1.9252	1	1.9252	1.9252	1.9252	rare
Aspen - White Spruce	LF(s)-AW-SWc-og(d)	2.0052	1	2.0052	2.0052	2.0052	rare
Aspen	LF(n)-AWc-ys(m)	2.0341	1	2.0341	2.0341	2.0341	rare
White Spruce - Lodgepole Pine	UF(f)-SW-MXo-og(w)	2.0394	1	2.0394	2.0394	2.0394	rare
Lodgepole Pine - White Spruce	SA(f)-PL-MXo-ms(m)	2.0821	1	2.0821	2.0821	2.0821	rare
White Spruce - Balsam Poplar	LF(n)-SW-PBc-ms(m)	2.0822	1	2.0822	2.0822	2.0822	rare
White Spruce - Lodgepole Pine	SA(n)-SW-MXo-og(m)	2.1580	2	1.0790	0.4800	1.6780	rare
White Spruce	UF(n)-SWo-ms(w)	2.1661	1	2.1661	2.1661	2.1661	rare
Lodgepole Pine	M(s)-PLo-ys(m)	2.1662	1	2.1662	2.1662	2.1662	rare
Engelmann Spruce - Lodgepole Pine	LF(s)-SE-PLo-ms(m)	2.1681	3	0.7227	0.3334	0.9664	rare
Treed Clearcut	UF(f)-CC3-PL-MXt(m)-sel	2.1860	1	2.1860	2.1860	2.1860	rare
Engelmann Spruce - Aspen	UF(f)-SE-AWo-og(m)	2.1997	1	2.1997	2.1997	2.1997	rare
Aspen	UF(n)-AWo-ms(w)	2.2225	1	2.2225	2.2225	2.2225	rare
Lodgepole Pine - Aspen	UF(f)-PL-AWc-og(m)	2.2998	3	0.7666	0.1789	1.4178	rare
Treed Clearcut	LF(f)-SB-PLm-sel	2.3200	1	2.3200	2.3200	2.3200	rare
Balsam Poplar - White Spruce	LF(n)-PB-SWc-og(m)	2.3507	1	2.3507	2.3507	2.3507	rare
Pine (Undifferentiated) - Aspen	M(s)-PL-AWo-ms(d)	2.3769	1	2.3769	2.3769	2.3769	rare
Tall Shrubland	M(f)-SOT(m)	2.3942	1	2.3942	2.3942	2.3942	rare
Lodgepole Pine - White Spruce	M(f)-PL-MXo-ys(m)	2.4066	1	2.4066	2.4066	2.4066	rare
Engelmann Spruce	SA(n)-SEo-ms(d)	2.4523	1	2.4523	2.4523	2.4523	rare
White Spruce - Balsam Poplar	LF(f)-SW-PBo-ms(m)	2.4986	2	1.2493	0.9329	1.5657	rare
White Spruce - Aspen	UF(n)-SW-AWo-ms(m)	2.5091	1	2.5091	2.5091	2.5091	rare
Aspen - Black Spruce	LF(f)-AW-SBc-ms(w)	2.5630	1	2.5630	2.5630	2.5630	rare
Lodgepole Pine - Aspen	UF(n)-PL-AWc-ys(m)	2.6397	1	2.6397	2.6397	2.6397	rare
Lodgepole Pine - White Spruce	SA(f)-PL-MXo-ms(w)	2.6435	2	1.3217	0.8929	1.7506	rare
Engelmann Spruce	LF(n)-SEo-ms(m)	2.7081	1	2.7081	2.7081	2.7081	rare
Aspen - White Spruce	LF(f)-AW-SWo-og(m)	2.7668	1	2.7668	2.7668	2.7668	rare
Engelmann Spruce - Lodgepole Pine	UF(f)-SE-PLo-ms(m)	2.7710	1	2.7710	2.7710	2.7710	rare
Engelmann Spruce	UF(n)-SEo-ms(m)	2.8132	1	2.8132	2.8132	2.8132	rare
Black Spruce - Tamarack	UF(f)-SB-LTc(m)	2.8543	1	2.8543	2.8543	2.8543	rare
Cutbank	LF(s)-CB	2.8651	3	0.9550	0.0000	2.8308	rare
Lodgepole Pine - White Spruce	SA(n)-PL-MXo-ms(m)	2.9150	1	2.9150	2.9150	2.9150	rare
Engelmann Spruce - Lodgepole Pine	SA(n)-SE-PLc-ms(d)	2.9156	2	1.4578	0.1075	2.8081	rare



Appendix 2.4 - North FMA Wildlife Habitat Units

Black Spruce - Aspen	M(f)-SB-AWo-ys(w)	2.9771	1	2.9771	2.9771	2.9771	rare
Aspen - Pine (Undifferentiated)	M(s)-AW-PLo-ms(d)	3.0157	1	3.0157	3.0157	3.0157	rare
Balsam Poplar - White Spruce	LF(f)-PB-SWc-og(m)	3.0670	4	0.7667	0.2355	1.5097	rare
Engelmann Spruce - Subalpine Fir	SA(f)-SE-FAc-ms(m)	3.0959	4	0.7740	0.0650	1.5642	rare
Pine (Undifferentiated)	M(f)-PLo-ms(w)	3.0985	1	3.0985	3.0985	3.0985	rare
Aspen - Lodgepole Pine	UF(n)-AW-PLc-og(m)	3.1024	1	3.1024	3.1024	3.1024	rare
Engelmann Spruce - Lodgepole Pine	UF(n)-SE-PLo-ms(w)	3.1205	2	1.5602	0.9445	2.1760	rare
Lodgepole Pine	LF(s)-PLo-ms(m)	3.1352	1	3.1352	3.1352	3.1352	rare
Black Spruce	UF(n)-SBc(m)	3.1414	1	3.1414	3.1414	3.1414	rare
White Spruce - Lodgepole Pine	SA(f)-SW-MXc-ms(w)	3.1508	3	1.0503	0.0001	3.0925	rare
Lodgepole Pine - White Spruce	UF(s)-PL-MXc-ys(m)	3.1586	1	3.1586	3.1586	3.1586	rare
White Spruce - Balsam Poplar	LF(f)-SW-PBo-ms(w)	3.1599	1	3.1599	3.1599	3.1599	rare
Aspen - Pine (Undifferentiated)	UF(f)-AW-PLc-og(m)	3.1974	2	1.5987	0.2223	2.9751	rare
Lodgepole Pine - Black Spruce	UF(f)-PL-MXc-ys(m)	3.2078	1	3.2078	3.2078	3.2078	rare
Black Spruce - Engelmann Spruce	LF(f)-SB-SEc-ms(m)	3.2883	1	3.2883	3.2883	3.2883	rare
White Spruce	LF(f)-SWc-ms(w)	3.3020	1	3.3020	3.3020	3.3020	rare
Pine (Undifferentiated) - Aspen	UF(n)-PL-AWo-ms(m)	3.3152	1	3.3152	3.3152	3.3152	rare
White Spruce	M(f)-SWc-ys(m)	3.3152	1	3.3152	3.3152	3.3152	rare
Aspen	M(f)-AWc-og(w)	3.3164	1	3.3164	3.3164	3.3164	rare
Treed Clearcut	LF(f)-SB-SWtm-sel	3.3214	1	3.3214	3.3214	3.3214	rare
White Spruce - Aspen	M(n)-SW-AWc-ys(m)	3.3687	1	3.3687	3.3687	3.3687	rare
Lodgepole Pine - White Spruce	UF(f)-PL-MXo-og(m)	3.3727	3	1.1242	0.0000	1.9072	rare
Industrial Facilities	SA(f)-AI	3.3817	3	1.1272	0.0000	3.3554	rare
Lodgepole Pine - White Spruce	M(s)-PL-MXo-ys(d)	3.3896	1	3.3896	3.3896	3.3896	rare
Human Settlement	LF(f)-AS	3.4020	2	1.7010	1.1356	2.2664	rare
Lodgepole Pine - White Spruce	SA(f)-PL-MXo-ys(m)	3.4829	1	3.4829	3.4829	3.4829	rare
Lodgepole Pine - Aspen	LF(s)-PL-AWc-ms(d)	3.4928	1	3.4928	3.4928	3.4928	rare
White Spruce	SA(s)-SWo-ms(w)	3.5803	1	3.5803	3.5803	3.5803	rare
Engelmann Spruce	SA(f)-SEo-og(m)	3.5829	4	0.8957	0.0000	3.4939	rare
White Spruce - Aspen	LF(s)-SW-AWo-ms(m)	3.5962	1	3.5962	3.5962	3.5962	rare
Cutbank	LF(n)-CB	3.6387	1	3.6387	3.6387	3.6387	rare
Treed Clearcut	M(n)-CC3-AWt(m)-sel	3.6537	4	0.9134	0.0000	3.3792	rare
Lodgepole Pine	LF(s)-PLc-ms(d)	3.6883	1	3.6883	3.6883	3.6883	rare
Mesic Graminoid	SA(s)-GR(m)	3.8192	2	1.9096	0.2346	3.5846	rare
Lodgepole Pine - White Spruce	LF(s)-PL-MXo-ms(m)	3.8454	2	1.9227	1.3647	2.4807	rare
Lodgepole Pine - Black Spruce	UF(s)-PL-MXc-ms(m)	3.8890	2	1.9445	0.4481	3.4409	rare
Treed Clearcut	UF(f)-CC3-PL-MXt(m)	3.9510	2	1.9755	1.2596	2.6914	rare
Treed Clearcut	M(f)-CC3-AW-PLt(m)-sel	4.0579	3	1.3526	0.0000	3.6032	rare
Engelmann Spruce - Aspen	UF(f)-SE-AWc-og(m)	4.1120	2	2.0560	1.8872	2.2248	rare
Pine (Undifferentiated) - Aspen	LF(f)-PL-AWo-ys(m)	4.1147	1	4.1147	4.1147	4.1147	rare
Treed Clearing	SA(f)-PLt(m)	4.1149	1	4.1149	4.1149	4.1149	rare
Black Spruce	UF(f)-SBc(m)	4.1236	5	0.8247	0.0000	3.8318	rare
Balsam Poplar - White Spruce	UF(s)-PB-SWc-og(m)	4.1380	1	4.1380	4.1380	4.1380	rare

Appendix 2.4 - North FMA Wildlife Habitat Units

Aspen - Pine (Undifferentiated)	UF(n)-AW-PLc-ys(d)	4.2860	1	4.2860	4.2860	4.2860	rare
Black Spruce - White Spruce	UF(n)-SB-SWc(m)	4.2949	1	4.2949	4.2949	4.2949	rare
White Spruce - Black Spruce	LF(s)-SW-MXc-ms(m)	4.3069	1	4.3069	4.3069	4.3069	rare
White Spruce - Lodgepole Pine	UF(s)-SW-MXo-ms(d)	4.3228	1	4.3228	4.3228	4.3228	rare
Engelmann Spruce	SA(s)-SEo-ms(d)	4.3661	4	1.0915	0.0327	2.8142	rare
Balsam Poplar	LF(s)-PBc-og(m)	4.4945	1	4.4945	4.4945	4.4945	rare
Treed Burn	UF(f)-BU-SWt(w)	4.5213	8	0.5652	0.0000	4.5211	rare
Pine (Undifferentiated)	M(f)-PLc-ys(d)	4.5312	2	2.2656	1.9010	2.6302	rare
Dry Graminoid	MF(n)-GR(d)	4.5468	1	4.5468	4.5468	4.5468	rare
Reclaimed Industrial	SA(f)-CI	4.5470	4	1.1368	0.0681	2.4372	rare
Pine (Undifferentiated)	UF(f)-PLc-ms(d)	4.5491	2	2.2746	0.9902	3.5589	rare
Black Spruce - Lodgepole Pine	UF(f)-SB-PLo(m)	4.6501	1	4.6501	4.6501	4.6501	rare
Pine (Undifferentiated) - Balsam Poplar	LF(f)-PL-PBo-og(m)	4.7223	1	4.7223	4.7223	4.7223	rare
White Spruce	M(f)-SWc-ms(d)	5.0043	1	5.0043	5.0043	5.0043	rare
Low Shrubland	M(n)-SOI(d)	5.0177	1	5.0177	5.0177	5.0177	rare
Black Spruce - Pine (Undifferentiated)	LF(f)-SB-PLc-ms(m)	5.0199	2	2.5099	2.0910	2.9289	rare
Treed Clearing	LF(s)-CL-AWt(m)	5.0208	2	2.5104	0.1046	4.9162	rare
White Spruce - Aspen	UF(f)-SW-AWo-ms(m)	5.1022	2	2.5511	1.9424	3.1599	rare
Aspen - Lodgepole Pine	M(s)-AW-PLo-ms(d)	5.1115	2	2.5557	2.5512	2.5603	rare
Engelmann Spruce	SA(f)-SEc-og(m)	5.1436	12	0.4286	0.0000	2.4818	rare
Annual Cropland	UF(f)-CA	5.1541	1	5.1541	5.1541	5.1541	rare
Low Shrubland	LF(s)-SCI(w)	5.2527	1	5.2527	5.2527	5.2527	rare
Aspen - Lodgepole Pine	M(s)-AW-PLc-ys(d)	5.2537	1	5.2537	5.2537	5.2537	rare
Lodgepole Pine - Aspen	UF(f)-PL-AWo-og(m)	5.2691	1	5.2691	5.2691	5.2691	rare
Low Shrubland	SA(f)-SOI(w)	5.2773	6	0.8796	0.0226	3.6299	rare
White Spruce	SA(f)-SWc-ms(w)	5.3936	1	5.3936	5.3936	5.3936	rare
Aspen - White Spruce	UF(n)-AW-SWo-ys(d)	5.4058	1	5.4058	5.4058	5.4058	rare
Aspen - Pine (Undifferentiated)	M(f)-AW-PLo-ms(w)	5.4152	1	5.4152	5.4152	5.4152	rare
White Spruce	LF(s)-SWc-ms(w)	5.4207	1	5.4207	5.4207	5.4207	rare
Treed Clearing	LF(f)-SW-MXt(m)	5.4520	1	5.4520	5.4520	5.4520	rare
Aspen - Pine (Undifferentiated)	M(f)-AW-PLo-ms(m)	5.4526	1	5.4526	5.4526	5.4526	rare
White Spruce - Lodgepole Pine	M(n)-SW-MXo-ms(w)	5.4825	1	5.4825	5.4825	5.4825	rare
White Spruce - Aspen	UF(s)-SW-AWo-ms(m)	5.5139	1	5.5139	5.5139	5.5139	rare
Black Spruce - Poplar (Undifferentiated)	LF(f)-SB-PBo-ms(w)	5.5428	1	5.5428	5.5428	5.5428	rare
Human Settlement	M(f)-AS	5.5506	5	1.1101	0.6552	1.6216	rare
White Spruce	LF(n)-SWc-ys(m)	5.5697	1	5.5697	5.5697	5.5697	rare
Lodgepole Pine	UF(n)-PLo-og(m)	5.5825	1	5.5825	5.5825	5.5825	rare
Cutbank	M(s)-CB	5.5869	9	0.6208	0.0001	2.0547	rare
Aspen - Pine (Undifferentiated)	LF(f)-AW-PLo-og(w)	5.5989	1	5.5989	5.5989	5.5989	rare
Lodgepole Pine - Aspen	M(s)-PL-AWo-ys(m)	5.6136	1	5.6136	5.6136	5.6136	rare
Dry Graminoid	M(f)-GR(d)	5.6333	1	5.6333	5.6333	5.6333	rare
Reclaimed Industrial	LF(s)-CI	5.6624	2	2.8312	0.4341	5.2283	rare
Aspen - Lodgepole Pine	UF(n)-AW-PLo-ms(m)	5.6889	3	1.8963	0.1802	3.5363	rare

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Aspen - White Spruce	UF(s)-AW-SWc-ms(d)	5.7190	1	5.7190	5.7190	5.7190	5.7190	rare
Aspen - Pine (Undifferentiated)	UF(s)-AW-PLc-ys(d)	5.7400	1	5.7400	5.7400	5.7400	5.7400	scarce
Aspen - Lodgepole Pine	UF(f)-AW-PLo-ms(w)	5.7578	1	5.7578	5.7578	5.7578	5.7578	scarce
Lodgepole Pine	UF(f)-PLc-ms(w)	5.7973	2	2.8986	1.3131	4.4842	4.4842	scarce
Pine (Undifferentiated)	LF(n)-PLc-ys(m)	5.8706	1	5.8706	5.8706	5.8706	5.8706	scarce
Engelmann Spruce	SA(f)-SEc-ms(w)	5.8958	2	2.9479	1.0271	4.8686	4.8686	scarce
Lodgepole Pine - Engelmann Spruce	LF(s)-PL-MXo-ms(m)	5.9192	3	1.9731	0.6200	2.9296	2.9296	scarce
White Spruce	UF(s)-SWo-ms(w)	5.9520	2	2.9760	0.2384	5.7136	5.7136	scarce
Rock	LF(f)-RB	5.9727	4	1.4932	1.1043	1.6627	1.6627	scarce
Pine (Undifferentiated) - Aspen	LF(s)-PL-AWc-ys(d)	5.9970	1	5.9970	5.9970	5.9970	5.9970	scarce
Treed Burn	UF(s)-BU-SW-Fat(m)	6.0019	2	3.0009	0.3291	5.6727	5.6727	scarce
Dry Graminoid	SA(s)-GR(d)	6.0099	1	6.0099	6.0099	6.0099	6.0099	scarce
Aspen	UF(n)-AWc-ys(m)	6.0336	1	6.0336	6.0336	6.0336	6.0336	scarce
Shrubby Clearing	M(f)-CL-GR(m)	6.1495	3	2.0498	0.0000	6.0001	6.0001	scarce
Aspen - White Spruce	M(f)-AW-SWo-ms(w)	6.1539	1	6.1539	6.1539	6.1539	6.1539	scarce
White Birch	LF(f)-BWo	6.1968	1	6.1968	6.1968	6.1968	6.1968	scarce
White Spruce - Lodgepole Pine	M(s)-SW-MXo-ys(w)	6.3664	1	6.3664	6.3664	6.3664	6.3664	scarce
Lodgepole Pine - Black Spruce	LF(f)-PL-MXc-ms(m)	6.4100	2	3.2050	2.8931	3.5169	3.5169	scarce
White Spruce	UF(f)-SWc-og(w)	6.5083	1	6.5083	6.5083	6.5083	6.5083	scarce
White Spruce - Lodgepole Pine	SA(s)-SW-MXo-ms(d)	6.5150	2	3.2575	2.3379	4.1771	4.1771	scarce
Treed Clearcut	LF(f)-SB-SWt(m)-sel	6.6040	1	6.6040	6.6040	6.6040	6.6040	scarce
Treed Clearcut	UF(f)-CC3-AW-PLI(m)	6.6414	1	6.6414	6.6414	6.6414	6.6414	scarce
White Spruce - Aspen	LF(f)-SW-AWc-ys(m)	6.6509	2	3.3255	1.0941	5.5568	5.5568	scarce
Lodgepole Pine - Black Spruce	UF(f)-PL-MXo-ms(m)	6.7143	3	2.2381	0.5606	3.2259	3.2259	scarce
White Spruce	M(s)-SWo-ms(d)	6.7351	1	6.7351	6.7351	6.7351	6.7351	scarce
Lodgepole Pine - White Spruce	A(n)-PL-MXc-ms(m)	6.7568	5	1.3514	0.0937	2.8250	2.8250	scarce
Treed Clearing	LF(n)-PL-AWt(m)	6.7581	1	6.7581	6.7581	6.7581	6.7581	scarce
Cutbank	UF(n)-CB	6.7947	2	3.3974	3.2975	3.4972	3.4972	scarce
Treed Clearcut	LF(f)-CC3-PL-AWI(m)	6.8099	1	6.8099	6.8099	6.8099	6.8099	scarce
Aspen - White Spruce	UF(f)-AW-SWc-ms(m)	6.8373	4	1.7093	0.2501	4.2924	4.2924	scarce
Black Spruce - Balsam Poplar	LF(f)-SB-PBo-og(w)	6.8609	1	6.8609	6.8609	6.8609	6.8609	scarce
Aspen	M(f)-AWc-ys(m)	6.8635	1	6.8635	6.8635	6.8635	6.8635	scarce
Shrubby Clearing	LF(f)-CL-SOI(m)	6.8678	1	6.8678	6.8678	6.8678	6.8678	scarce
Aspen	UF(n)-AWc-ys(d)	6.8838	1	6.8838	6.8838	6.8838	6.8838	scarce
Aspen	UF(s)-AWc-ys(d)	6.9221	2	3.4611	1.7077	5.2144	5.2144	scarce
Aspen	M(s)-AWo-ys(d)	6.9952	1	6.9952	6.9952	6.9952	6.9952	scarce
White Spruce	LF(n)-SWc-og(m)	7.0009	2	3.5004	0.3177	6.6832	6.6832	scarce
Black Spruce	LF(f)-SBo(m)	7.0169	3	2.3390	1.5892	3.4727	3.4727	scarce
Treed Clearcut	LF(s)-CC3-AWt(m)-sel	7.0361	3	2.3454	0.2010	4.3466	4.3466	scarce
Aspen - Lodgepole Pine	M(f)-AW-PLo-ms(m)	7.1404	1	7.1404	7.1404	7.1404	7.1404	scarce
Lodgepole Pine - Engelmann Spruce	LF(f)-PL-MXo-ms(m)	7.3129	3	2.4376	1.7003	3.4020	3.4020	scarce
Black Spruce - Balsam Poplar	LF(f)-SB-PBc-ms(w)	7.3131	1	7.3131	7.3131	7.3131	7.3131	scarce
Lodgepole Pine - Engelmann Spruce	UF(f)-PL-MXo-ms(m)	7.3413	2	3.6707	0.8054	6.5360	6.5360	scarce

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Low Shrubland	LF(n)-SOI(m)	7.3473	1	7.3473	7.3473	7.3473	7.3473	scarce
White Spruce	SA(s)-SWo-ms(m)	7.3506	1	7.3506	7.3506	7.3506	7.3506	scarce
Lodgepole Pine - Engelmann Spruce	UF(s)-PL-MXc-ms(m)	7.4045	4	1.8511	0.8138	2.8207	2.8207	scarce
Aspen - White Spruce	M(s)-AW-SWc-ys(m)	7.4471	1	7.4471	7.4471	7.4471	7.4471	scarce
Aspen - White Spruce	M(f)-AW-SWc-ms(d)	7.5441	1	7.5441	7.5441	7.5441	7.5441	scarce
Engelmann Spruce	LF(s)-SEc-ms(m)	7.5497	2	3.7748	3.0072	4.5425	4.5425	scarce
White Spruce	UF(s)-SWo-og(w)	7.5551	1	7.5551	7.5551	7.5551	7.5551	scarce
Low Shrubland	UF(f)-SCI(d)	7.5747	1	7.5747	7.5747	7.5747	7.5747	scarce
White Spruce - Aspen	LF(f)-SW-AWo-og(m)	7.6373	1	7.6373	7.6373	7.6373	7.6373	scarce
Mesic Graminoid	M(s)-GR(m)	7.7133	1	7.7133	7.7133	7.7133	7.7133	scarce
Engelmann Spruce - Aspen	LF(f)-SE-AWc-og(m)	7.7336	2	3.8668	0.0528	7.6809	7.6809	scarce
Balsam Poplar - White Spruce	LF(s)-PB-SWc-og(m)	7.7470	4	1.9367	0.0005	4.3449	4.3449	scarce
Treed Clearing	LF(f)-PLt(m)	7.8688	1	7.8688	7.8688	7.8688	7.8688	scarce
Graminoid Clearing	UF(s)-CL-GR(m)	7.9035	4	1.9759	0.9364	3.6001	3.6001	scarce
Graminoid Clearcut	LF(s)-CC1-GR(d)	7.9233	1	7.9233	7.9233	7.9233	7.9233	scarce
Lodgepole Pine	LF(n)-PLo-ms(m)	7.9339	2	3.9670	1.9914	5.9425	5.9425	scarce
Pine (Undifferentiated)	LF(n)-PLo-ys(m)	7.9617	1	7.9617	7.9617	7.9617	7.9617	scarce
Shrub / Sapling Clearcut	LF(n)-CC2-SCI(m)	7.9646	1	7.9646	7.9646	7.9646	7.9646	scarce
Aspen - White Spruce	M(s)-AW-SWo-ys(m)	7.9655	1	7.9655	7.9655	7.9655	7.9655	scarce
Treed Clearcut	UF(f)-CC3-PL-AWt(m)-sel	8.0725	2	4.0363	3.8808	4.1917	4.1917	scarce
Pine (Undifferentiated)	UF(s)-PLo-ms(m)	8.1705	2	4.0852	1.8512	6.3193	6.3193	scarce
Aspen - Engelmann Spruce	LF(n)-AW-SEc-ms(m)	8.1743	2	4.0871	3.0052	5.1691	5.1691	scarce
Treed Clearcut	UF(n)-CC3-SWt(m)-sel	8.2162	1	8.2162	8.2162	8.2162	8.2162	scarce
Pine (Undifferentiated)	M(n)-PLc-ys(m)	8.2226	1	8.2226	8.2226	8.2226	8.2226	scarce
Aspen - Pine (Undifferentiated)	UF(n)-AW-PLc-ms(d)	8.2279	4	2.0570	0.0000	6.6881	6.6881	scarce
Lodgepole Pine - White Spruce	SA(s)-PL-MXc-ms(d)	8.2280	1	8.2280	8.2280	8.2280	8.2280	scarce
White Spruce	UF(s)-SWc-ms(w)	8.3040	1	8.3040	8.3040	8.3040	8.3040	scarce
Treed Clearcut	LF(s)-CC3-AW-SWt(m)	8.3485	1	8.3485	8.3485	8.3485	8.3485	scarce
White Spruce - Pine (Undifferentiated)	UF(f)-SW-MXo-ms(m)	8.4087	1	8.4087	8.4087	8.4087	8.4087	scarce
Treed Clearcut	LF(n)-CC3-AW-PLt(m)	8.4425	1	8.4425	8.4425	8.4425	8.4425	scarce
Black Spruce - Aspen	UF(f)-SB-AWc-ms(m)	8.4427	1	8.4427	8.4427	8.4427	8.4427	scarce
Lodgepole Pine - Aspen	M(f)-PL-AWc-ms(d)	8.5097	1	8.5097	8.5097	8.5097	8.5097	scarce
Engelmann Spruce - Lodgepole Pine	LF(s)-SE-PLc-ms(m)	8.5895	4	2.1474	0.7740	4.7297	4.7297	scarce
Lodgepole Pine	UF(n)-PLo-ms(d)	8.6329	3	2.8776	1.8329	4.3558	4.3558	scarce
Lodgepole Pine	UF(n)-PLc-og(d)	8.6552	2	4.3276	2.5035	6.1517	6.1517	scarce
Reclaimed Industrial	M(f)-CI	8.6939	6	1.4490	1.0347	2.0101	2.0101	scarce
Lodgepole Pine	UF(n)-PLc-og(m)	8.7861	2	4.3931	0.0808	8.7054	8.7054	scarce
Lodgepole Pine - White Spruce	LF(n)-PL-MXo-ms(m)	8.8282	3	2.9427	0.1128	4.8738	4.8738	scarce
Black Spruce - Pine (Undifferentiated)	LF(f)-SB-PLo-ms(w)	8.8769	1	8.8769	8.8769	8.8769	8.8769	scarce
Treed Clearing	LF(f)-AW-SWI(m)	8.8845	1	8.8845	8.8845	8.8845	8.8845	scarce
Engelmann Spruce - Lodgepole Pine	UF(s)-SE-PLc-ms(m)	8.9379	3	2.9793	0.4408	7.0156	7.0156	scarce
Balsam Poplar	LF(f)-PBo-og(m)	8.9909	2	4.4954	4.3600	4.6309	4.6309	scarce
Engelmann Spruce - Aspen	LF(n)-SE-AWc-ms(m)	9.0955	1	9.0955	9.0955	9.0955	9.0955	scarce

Appendix 2.4 - North FMA Wildlife Habitat Units

Graminoid Clearcut	UF(n)-CC1-GR(d)	9.1512	1	9.1512	9.1512	9.1512	scarce
Reclaimed Industrial	LF(n)-CI	9.1752	3	3.0584	0.8219	5.1940	scarce
Aspen	LF(s)-AWo-ys(d)	9.1922	1	9.1922	9.1922	9.1922	scarce
Pine (Undifferentiated)	UF(n)-PLo-ms(d)	9.2735	1	9.2735	9.2735	9.2735	scarce
Lodgepole Pine - White Spruce	M(n)-PL-MXo-ms(d)	9.3659	2	4.6829	1.9022	7.4637	scarce
Treed Clearcut	M(f)-CC3-PLt(m)-sel	9.4569	1	9.4569	9.4569	9.4569	scarce
White Spruce - Lodgepole Pine	M(f)-SW-MXc-ms(w)	9.4666	3	3.1555	1.5576	4.0106	scarce
Aspen - Lodgepole Pine	UF(n)-AW-PLc-ms(d)	9.4920	1	9.4920	9.4920	9.4920	scarce
Perennial Cropland	M(s)-CP	9.4935	2	4.7467	3.2048	6.2887	scarce
Lodgepole Pine - Aspen	UF(s)-PL-AWo-ms(m)	9.6085	1	9.6085	9.6085	9.6085	scarce
White Spruce - Black Spruce	M(f)-SW-MXo-ms(w)	9.6111	1	9.6111	9.6111	9.6111	scarce
Lodgepole Pine	SA(s)-PLo-ms(d)	9.6133	3	3.2044	1.7483	5.3546	scarce
Pine (Undifferentiated) - Black Spruce	UF(f)-PL-MXo-ms(w)	9.7344	1	9.7344	9.7344	9.7344	scarce
Tall Shrubland	LF(f)-SOI(m)	9.7599	2	4.8800	4.8685	4.8914	scarce
Aspen	LF(n)-AWo-og(m)	9.7704	1	9.7704	9.7704	9.7704	scarce
Aspen - Pine (Undifferentiated)	LF(f)-AW-PLc-og(w)	9.9995	2	4.9998	1.3663	8.6332	scarce
Engelmann Spruce	LF(n)-SEc-ms(m)	10.0873	4	2.5218	1.9974	3.4651	scarce
Lodgepole Pine	M(s)-PLo-ms(d)	10.1040	1	10.1040	10.1040	10.1040	scarce
Pine (Undifferentiated)	M(n)-PLo-ms(m)	10.1352	1	10.1352	10.1352	10.1352	scarce
Lodgepole Pine - White Spruce	SA(f)-PL-MXc-og(m)	10.2061	2	5.1031	0.0698	10.1363	scarce
White Spruce - Pine (Undifferentiated)	LF(n)-SW-MXo-og(m)	10.2233	1	10.2233	10.2233	10.2233	scarce
Low Shrubland	M(s)-SCI(w)	10.2605	1	10.2605	10.2605	10.2605	scarce
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXo-ys(m)	10.2699	1	10.2699	10.2699	10.2699	scarce
White Spruce - Aspen	UF(f)-SW-AWo-og(w)	10.3138	1	10.3138	10.3138	10.3138	scarce
Balsam Poplar - Pine (Undifferentiated)	LF(s)-PB-PLc-og(m)	10.3339	1	10.3339	10.3339	10.3339	scarce
Aspen	LF(f)-AWo-ms(w)	10.3368	3	3.4456	2.1279	4.4157	scarce
White Spruce - Pine (Undifferentiated)	LF(n)-SW-MXc-ys(m)	10.3997	1	10.3997	10.3997	10.3997	scarce
White Spruce - Aspen	UF(s)-SW-AWc-ms(d)	10.4371	1	10.4371	10.4371	10.4371	scarce
Pine (Undifferentiated) - White Spruce	UF(n)-PL-MXc-ms(d)	10.4450	1	10.4450	10.4450	10.4450	scarce
Pine (Undifferentiated)	M(f)-PLo-ms(m)	10.4693	1	10.4693	10.4693	10.4693	scarce
Pine (Undifferentiated)	M(f)-PLo-ys(m)	10.5226	1	10.5226	10.5226	10.5226	scarce
Lodgepole Pine - Engelmann Spruce	SA(f)-PL-MXc-ms(m)	10.5448	4	2.6362	0.0459	7.7024	scarce
Treed Clearcut	UF(f)-CC3-SWt(m)-sel	10.6773	2	5.3386	1.5712	9.1061	scarce
Treed Clearing	LF(f)-PL-AWt(m)	10.6925	2	5.3463	0.1396	10.5529	scarce
Black Spruce - White Spruce	UF(f)-SB-SWo(w)	10.7972	2	5.3986	2.4635	8.3338	scarce
White Spruce	SA(f)-SWo-og(w)	10.8246	3	3.6082	0.0847	7.7281	scarce
Pine (Undifferentiated) - Aspen	M(f)-PL-AWc-ms(d)	10.8399	2	5.4199	3.4649	7.3750	scarce
Treed Clearcut	M(f)-CC3-AW-SWt(m)-sel	10.9422	2	5.4711	4.1747	6.7676	scarce
Black Spruce - Tamarack	UF(f)-SB-LTo(w)	10.9655	2	5.4828	3.3758	7.5897	scarce
Aspen - Pine (Undifferentiated)	LF(s)-AW-PLc-ms(d)	10.9665	1	10.9665	10.9665	10.9665	scarce
Treed Clearcut	M(f)-CC3-PL-AWt(m)-sel	10.9690	1	10.9690	10.9690	10.9690	scarce
Black Spruce - White Spruce	M(f)-SB-SWc(m)	10.9826	1	10.9826	10.9826	10.9826	scarce
Pine (Undifferentiated) - Balsam Poplar	M(n)-PL-PBc-ms(w)	11.0057	1	11.0057	11.0057	11.0057	scarce

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Lodgepole Pine - Aspen	UF(n)-PL-AWc-og(d)	11.0105	1	11.0105	11.0105	11.0105	scarce
Aspen - White Spruce	LF(f)-AW-SWc-ms(w)	11.0470	5	2.2094	0.0001	6.1546	scarce
Mesic Graminoid	UF(n)-GR(m)	11.0829	4	2.7707	0.8026	6.2227	scarce
Treed Clearcut	M(s)-CC3-AWt(d)	11.0868	1	11.0868	11.0868	11.0868	scarce
Black Spruce - Aspen	LF(f)-SB-AWc-ms(w)	11.0898	2	5.5449	4.1284	6.9614	scarce
Aspen - Pine (Undifferentiated)	M(s)-AW-PLc-ms(d)	11.1496	2	5.5748	3.6355	7.5141	scarce
Reclaimed Industrial	UF(n)-CI	11.1583	5	2.2317	1.1283	4.7295	scarce
White Spruce	UF(n)-SWo-ms(d)	11.1757	5	2.2351	0.0500	5.3770	scarce
White Spruce - Aspen	LF(n)-SW-AWc-og(m)	11.3023	2	5.6511	3.1706	8.1317	scarce
Pine (Undifferentiated) - Aspen	M(f)-PL-AWo-ms(d)	11.3245	1	11.3245	11.3245	11.3245	scarce
White Spruce - Balsam Poplar	LF(n)-SW-PBc-og(m)	11.3436	1	11.3436	11.3436	11.3436	scarce
Aspen - White Spruce	UF(n)-AW-SWc-ys(m)	11.3946	2	5.6973	4.9859	6.4088	scarce
White Spruce - Pine (Undifferentiated)	LF(f)-SW-MXc-ms(w)	11.4228	4	2.8557	0.2595	5.3214	scarce
White Spruce - Black Spruce	UF(f)-SW-MXc-ms(w)	11.4348	3	3.8116	1.6493	6.1187	scarce
Lodgepole Pine - Black Spruce	UF(f)-PL-MXc-ms(w)	11.4396	2	5.7198	5.4381	6.0014	scarce
Engelmann Spruce	SA(f)-SEo-ms(w)	11.4962	2	5.7481	3.5804	7.9158	scarce
Pine (Undifferentiated) - Aspen	LF(f)-PL-AWo-og(m)	11.5290	4	2.8822	0.2544	9.3663	scarce
Shrubby Clearing	LF(f)-CL-SCL(m)	11.5464	2	5.7732	5.5329	6.0135	scarce
Pine (Undifferentiated) - Aspen	M(s)-PL-AWo-ys(d)	11.5530	1	11.5530	11.5530	11.5530	scarce
Lodgepole Pine - White Spruce	UF(n)-PL-MXc-ms(d)	11.5986	1	11.5986	11.5986	11.5986	scarce
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXc-ys(w)	11.6315	1	11.6315	11.6315	11.6315	scarce
Lodgepole Pine	SA(f)-PLc-ys(m)	11.6366	1	11.6366	11.6366	11.6366	scarce
Lodgepole Pine - White Spruce	M(f)-PL-MXc-ms(w)	11.6839	1	11.6839	11.6839	11.6839	scarce
Lodgepole Pine	SA(f)-PLc-og(m)	11.7709	3	3.9236	0.0970	10.7984	scarce
White Birch - Lodgepole Pine	LF(f)-BW-PLc-ys(m)	11.7918	1	11.7918	11.7918	11.7918	scarce
Lodgepole Pine - White Spruce	SA(s)-PL-MXc-ms(d)	11.9516	3	3.9839	0.0200	8.8723	scarce
White Spruce - Aspen	UF(s)-SW-AWo-ms(d)	11.9672	2	5.9836	0.3755	11.5917	scarce
Aspen - Black Spruce	LF(f)-AW-SBo-ms(w)	12.1088	1	12.1088	12.1088	12.1088	scarce
Aspen - Engelmann Spruce	M(f)-AW-SEo-ms(m)	12.1138	1	12.1138	12.1138	12.1138	scarce
Pine (Undifferentiated) - Black Spruce	LF(f)-PL-MXc-ms(w)	12.1900	2	6.0950	5.8117	6.3784	scarce
Aspen - Pine (Undifferentiated)	M(s)-AW-PLc-ms(m)	12.3045	4	3.0761	0.2771	7.9745	scarce
Pine (Undifferentiated)	LF(s)-PLc-ys(m)	12.3335	7	1.7619	0.0000	8.9359	scarce
Lodgepole Pine - Aspen	M(f)-PL-AWo-ms(m)	12.4156	3	4.1385	1.8162	5.5000	scarce
Aspen - White Spruce	LF(n)-AW-SWo-og(m)	12.6081	1	12.6081	12.6081	12.6081	scarce
Aspen	UF(f)-AWo-ms(m)	12.6843	2	6.3421	6.3148	6.3695	scarce
Pine (Undifferentiated) - Black Spruce	LF(f)-PL-MXc-ms(w)	12.7341	1	12.7341	12.7341	12.7341	scarce
White Spruce - Lodgepole Pine	LF(f)-SW-MXc-ms(w)	12.7601	2	6.3800	1.8142	10.9459	scarce
Graminoid Clearing	UF(n)-CL-GR(m)	12.7668	6	2.1278	0.8542	4.6777	scarce
Aspen - Lodgepole Pine	M(f)-AW-PLc-ms(d)	12.8933	1	12.8933	12.8933	12.8933	scarce
Black Spruce - Lodgepole Pine	LF(f)-SB-PLc-ms(w)	12.9014	3	4.3005	0.3897	8.9324	scarce
White Spruce - Lodgepole Pine	A(f)-SW-MXc-ms(m)	12.9051	4	3.2263	0.0386	11.2499	scarce
Black Spruce - Aspen	LF(f)-SB-AWc-ms(m)	12.9740	1	12.9740	12.9740	12.9740	scarce
Balsam Poplar	LF(f)-PBc-og(m)	12.9745	2	6.4872	3.4671	9.5073	scarce

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White Spruce - Black Spruce	LF(n)-SW-MXc-ms(m)	12.9985	1	12.9985	12.9985	12.9985	scarce
Black Spruce - White Spruce	UF(f)-SB-SWc(w)	13.1417	4	3.2854	0.0255	5.6600	scarce
Low Shrubland	LF(f)-SCI(d)	13.1522	1	13.1522	13.1522	13.1522	scarce
Balsam Poplar - White Spruce	UF(s)-PB-SWc-ms(m)	13.1649	1	13.1649	13.1649	13.1649	scarce
Pine (Undifferentiated)	M(f)-PLo-ms(d)	13.2946	2	6.6473	3.4443	9.8504	scarce
Lodgepole Pine - Aspen	UF(n)-PL-AWo-ms(m)	13.3996	2	6.6998	1.5213	11.8783	scarce
Treed Clearcut	UF(f)-CC3-PLt(m)-sel	13.4138	1	13.4138	13.4138	13.4138	scarce
Aspen	LF(f)-AWc-ys(m)	13.4844	4	3.3711	1.0789	5.8498	scarce
Black Spruce - Pine (Undifferentiated)	LF(n)-SB-PLc-ms(m)	13.5658	4	3.3914	0.1335	9.5658	scarce
UNCLASSIFIED	UC	13.6110	10	1.3611	0.0000	12.1504	scarce
White Spruce - Aspen	UF(n)-SW-AWo-ms(m)	13.6935	2	6.8468	5.9424	7.7511	scarce
White Spruce	SA(f)-SWc-og(w)	13.7068	2	6.8534	5.1337	8.5731	scarce
Dry Graminoid	UF(f)-GR(d)	13.8622	3	4.6207	2.0284	8.8655	scarce
White Spruce	UF(s)-SWc-ys(m)	13.9387	2	6.9693	0.1542	13.7845	scarce
White Spruce - Aspen	UF(n)-SW-AWo-ms(d)	13.9478	1	13.9478	13.9478	13.9478	scarce
Tall Shrubland	M(f)-SCT(w)	14.0763	4	3.5191	2.3815	6.3619	scarce
Aspen	M(n)-AWc-ys(d)	14.2577	1	14.2577	14.2577	14.2577	scarce
Balsam Poplar	M(n)-PBc-ms(w)	14.2926	2	7.1463	3.7892	10.5034	scarce
White Spruce	LF(f)-SWc-og(w)	14.2971	3	4.7657	0.0001	14.2969	scarce
Pine (Undifferentiated)	LF(f)-PLo-ys(m)	14.4104	1	14.4104	14.4104	14.4104	scarce
White Spruce - Lodgepole Pine	UF(s)-SW-MXc-ms(d)	14.5331	3	4.8444	1.4946	8.5599	scarce
Black Spruce - Lodgepole Pine	UF(f)-SB-PLo(w)	14.6104	5	2.9221	0.6906	5.8081	scarce
Engelmann Spruce - Aspen	LF(f)-SE-AWc-ms(m)	14.7053	2	7.3526	6.1622	8.5431	scarce
Black Spruce - White Spruce	M(f)-SB-SWc(w)	14.7504	6	2.4584	0.0001	14.5386	scarce
Aspen - Pine (Undifferentiated)	UF(f)-AW-PLc-ys(m)	14.8546	1	14.8546	14.8546	14.8546	scarce
Perennial Cropland	LF(s)-CP	14.8680	1	14.8680	14.8680	14.8680	scarce
Aspen - White Spruce	UF(s)-AW-SWc-ys(m)	14.9140	1	14.9140	14.9140	14.9140	scarce
Pine (Undifferentiated)	M(f)-PLc-ms(d)	14.9197	4	3.7299	0.0807	6.2149	scarce
Low Shrubland	UF(n)-SCI(w)	14.9360	3	4.9787	2.7623	8.8840	scarce
Treed Clearcut	UF(n)-CC3-PLt(m)	15.0322	1	15.0322	15.0322	15.0322	scarce
Graminoid Clearing	LF(s)-CL-GR(m)	15.0576	2	7.5288	3.2008	11.8567	scarce
White Spruce	LF(s)-SWo-ms(m)	15.3065	1	15.3065	15.3065	15.3065	scarce
Lodgepole Pine - Engelmann Spruce	LF(n)-PL-MXc-ys(m)	15.4390	2	7.7195	5.8951	9.5439	scarce
Lodgepole Pine - White Spruce	UF(n)-PL-MXc-ys(m)	15.4695	3	5.1565	2.5461	8.3970	scarce
Lodgepole Pine	UF(s)-PLc-ys(d)	15.4839	1	15.4839	15.4839	15.4839	scarce
Aquatic Flooded	M(f)-WL	15.4840	5	3.0968	0.6736	5.8485	scarce
Lodgepole Pine - Aspen	LF(f)-PL-AWo-ms(m)	15.7760	4	3.9440	0.1844	9.6909	scarce
Lodgepole Pine - Aspen	UF(n)-PL-AWc-ms(d)	15.7792	1	15.7792	15.7792	15.7792	scarce
Aspen - White Spruce	LF(n)-AW-SWc-ms(d)	15.7916	4	3.9479	0.0690	8.1118	scarce
White Spruce - Lodgepole Pine	M(s)-SW-MXo-ms(d)	16.0778	1	16.0778	16.0778	16.0778	scarce
Low Shrubland	LF(s)-SCI(d)	16.1824	4	4.0456	0.1648	11.4283	scarce
Lodgepole Pine - Engelmann Spruce	SA(f)-PL-MXc-ys(m)	16.2219	1	16.2219	16.2219	16.2219	scarce
Balsam Poplar	M(n)-PBc-ms(m)	16.2915	1	16.2915	16.2915	16.2915	uncommon

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Rock	A(n)-RB	16.3058	13	1.2543	0.0000	7.6480	uncommon
White Spruce	LF(f)-SWo-og(m)	16.3107	2	8.1553	5.2969	11.0137	uncommon
Tall Shrubland	LF(f)-SCI(w)	16.3132	4	4.0783	2.4227	6.7690	uncommon
Treed Clearcut	UF(f)-CC3-PL-SBT(m)-sel	16.3704	2	8.1852	7.7142	8.6563	uncommon
Lodgepole Pine - Black Spruce	LF(f)-PL-PBc-ms(m)	16.4711	1	16.4711	16.4711	16.4711	uncommon
Treed Clearcut	LF(f)-CC3-AW-SBT(m)-sel	16.4867	1	16.4867	16.4867	16.4867	uncommon
Aspen	LF(n)-AWo-ms(m)	16.5066	3	5.5022	0.8792	13.0880	uncommon
Shrub / Sapling Clearcut	LF(s)-CC2-SOI(m)	16.8237	2	8.4119	6.5533	10.2704	uncommon
Engelmann Spruce - Lodgepole Pine	UF(f)-SE-PLc-ms(m)	16.8906	15	1.1260	0.0000	8.9029	uncommon
Pine (Undifferentiated) - White Spruce	UF(n)-PL-MXo-ms(m)	16.9335	2	8.4668	2.1198	14.8137	uncommon
White Spruce - Balsam Poplar	LF(f)-SW-PBo-og(w)	16.9853	2	8.4926	6.1829	10.8024	uncommon
Shrub / Sapling Clearcut	LF(f)-CC2-SCI(m)	17.0201	4	4.2550	0.9140	13.1031	uncommon
Forb Meadow	M(f)-FM(m)	17.0394	1	17.0394	17.0394	17.0394	uncommon
White Spruce - Balsam Poplar	UF(n)-SW-PBc-og(m)	17.0623	3	5.6874	0.2272	10.3219	uncommon
Aspen - Pine (Undifferentiated)	UF(f)-AW-PLc-ms(m)	17.0815	1	17.0815	17.0815	17.0815	uncommon
Pine (Undifferentiated) - Aspen	UF(f)-PL-AWc-og(m)	17.1344	2	8.5672	0.1261	17.0084	uncommon
White Spruce - Black Spruce	UF(f)-SW-MXc-ys(m)	17.1737	1	17.1737	17.1737	17.1737	uncommon
White Spruce	LF(f)-SWc-ys(m)	17.1803	10	1.7180	0.0000	6.6825	uncommon
Lodgepole Pine	UF(s)-PLo-ms(m)	17.1913	6	2.8652	0.0105	8.4914	uncommon
Pine (Undifferentiated)	UF(f)-PLc-ys(m)	17.3072	2	8.6536	7.5372	9.7700	uncommon
Aspen - Pine (Undifferentiated)	M(s)-AW-PLc-ys(d)	17.4840	4	4.3710	1.5752	6.9428	uncommon
Black Spruce	M(s)-SBo(m)	17.5373	5	3.5075	0.0549	15.5824	uncommon
Lodgepole Pine - White Spruce	LF(f)-PL-MXc-og(m)	17.5406	1	17.5406	17.5406	17.5406	uncommon
Lodgepole Pine	UF(f)-PLo-ms(w)	17.5647	8	2.1956	0.5510	4.9034	uncommon
Aspen - White Spruce	UF(n)-AW-SWc-ms(d)	17.7845	4	4.4461	0.1484	9.2333	uncommon
Aspen - White Spruce	M(n)-AW-SWc-og(m)	17.8286	2	8.9143	7.6671	10.1616	uncommon
White Spruce - Lodgepole Pine	M(s)-SW-MXc-ms(m)	17.8565	3	5.9522	0.3294	9.1187	uncommon
Treed Clearcut	UF(f)-CC3-PLI(m)	17.9444	1	17.9444	17.9444	17.9444	uncommon
Black Spruce	M(f)-SBc(w)	18.3045	3	6.1015	2.3756	11.9362	uncommon
Lodgepole Pine - Aspen	M(s)-PL-AWo-ms(d)	18.4839	1	18.4839	18.4839	18.4839	uncommon
Lodgepole Pine	M(f)-PLo-ms(w)	18.5017	7	2.6431	0.0000	11.7352	uncommon
Shrub / Sapling Clearcut	UF(s)-CC2-SOI(m)	18.5079	3	6.1693	3.9389	8.2832	uncommon
Pine (Undifferentiated) - Balsam Poplar	UF(s)-PL-PBc-og(m)	18.7505	7	2.6786	0.0001	6.9587	uncommon
White Spruce	M(s)-SWo-ms(w)	18.7832	1	18.7832	18.7832	18.7832	uncommon
Pine (Undifferentiated) - Aspen	LF(s)-PL-AWc-ys(m)	18.8538	2	9.4269	0.0006	18.8532	uncommon
White Spruce - Lodgepole Pine	LF(f)-SW-MXo-ms(m)	18.9163	8	2.3645	0.9469	4.6448	uncommon
Mesic Graminoid	LF(s)-GR(m)	19.1116	7	2.7302	0.1782	5.3212	uncommon
Lodgepole Pine	UF(s)-PLo-ms(d)	19.1521	12	1.5960	0.0725	3.6044	uncommon
Lodgepole Pine - Engelmann Spruce	LF(n)-PL-MXo-ms(m)	19.2294	8	2.4037	0.0238	5.4460	uncommon
Low Shrubland	LF(n)-SCI(m)	19.6848	3	6.5616	3.7340	8.8005	uncommon
White Spruce - Lodgepole Pine	M(f)-SW-MXo-ys(m)	19.8374	2	9.9187	3.1139	16.7235	uncommon
Aspen - Pine (Undifferentiated)	M(f)-AW-PLc-og(m)	19.8741	2	9.9370	4.1440	15.7301	uncommon
White Spruce - Lodgepole Pine	UF(s)-SW-MXo-ms(m)	19.9665	19	1.0509	0.0000	5.3771	uncommon



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Lodgepole Pine	M(f)-PLo-ys(m)	20.0273	3	6.6758	4.2168	10.6849	uncommon
Pine (Undifferentiated) - White Spruce	LF(s)-PL-MXc-ys(m)	20.2060	1	20.2060	20.2060	20.2060	uncommon
Treed Clearcut	UF(s)-CC3-SWt(m)-sel	20.2335	1	20.2335	20.2335	20.2335	uncommon
Treed Clearcut	LF(s)-PL-AWt(m)-sel	20.2808	2	10.1404	0.1627	20.1180	uncommon
Aspen	M(s)-AWo-ms(m)	20.3552	2	10.1776	10.0520	10.3033	uncommon
Treed Clearcut	UF(f)-CC3-SW-AWt(m)-sel	20.3902	1	20.3902	20.3902	20.3902	uncommon
Low Shrubland	UF(n)-SCI(m)	20.4581	5	4.0916	1.4032	7.9026	uncommon
Pine (Undifferentiated)	M(n)-PLo-ms(d)	20.7483	1	20.7483	20.7483	20.7483	uncommon
Shrub / Sapling Clearcut	LF(s)-CC2-SOI(w)	20.8793	1	20.8793	20.8793	20.8793	uncommon
Graminoid Clearing	M(f)-CL-GR(m)	21.0189	6	3.5031	0.3541	13.1796	uncommon
Pine (Undifferentiated)	M(n)-PLc-ms(d)	21.0559	3	7.0186	1.7880	14.4870	uncommon
Aspen - White Spruce	M(f)-AW-SWo-ms(m)	21.1744	3	7.0581	4.5276	9.5357	uncommon
Treed Clearing	LF(n)-CL-AWt(m)	21.3272	1	21.3272	21.3272	21.3272	uncommon
White Spruce - Black Spruce	UF(s)-SW-MXc-ms(m)	21.6686	8	2.7086	0.0345	10.1615	uncommon
Wet Graminoid	UF(s)-GR(w)	21.7029	2	10.8514	2.9344	18.7685	uncommon
Engelmann Spruce - Lodgepole Pine	SA(f)-SE-PLc-ms(m)	21.7120	5	4.3424	0.0771	17.8959	uncommon
Mesic Graminoid	SA(f)-GR(m)	21.7414	17	1.2789	0.0000	5.4057	uncommon
Lodgepole Pine	SA(n)-PLc-ms(d)	21.7838	2	10.8919	6.4886	15.2951	uncommon
Engelmann Spruce - Lodgepole Pine	LF(n)-SE-PLo-ms(m)	21.8014	4	5.4503	1.0939	13.7063	uncommon
White Spruce - Aspen	M(f)-SW-AWo-ms(d)	21.8360	5	4.3672	0.5158	10.6202	uncommon
Pine (Undifferentiated) - White Spruce	M(n)-PL-MXc-ys(m)	21.9548	1	21.9548	21.9548	21.9548	uncommon
Balsam Poplar - Pine (Undifferentiated)	UF(s)-PB-PLc-og(m)	21.9703	3	7.3234	0.0059	15.1651	uncommon
Treed Clearing	LF(s)-AW-SWt(m)	22.1505	1	22.1505	22.1505	22.1505	uncommon
Aspen	LF(f)-AWo-ys(m)	22.3446	8	2.7931	0.0000	13.1667	uncommon
Lodgepole Pine - Engelmann Spruce	M(f)-PL-MXc-ms(m)	22.3451	4	5.5863	0.0003	17.8859	uncommon
White Spruce - Lodgepole Pine	LF(s)-SW-MXo-ms(m)	22.5632	7	3.2233	0.0001	9.4505	uncommon
White Spruce - Black Spruce	M(f)-SW-MXc-ms(m)	22.5779	2	11.2890	10.2346	12.3434	uncommon
Pine (Undifferentiated) - Poplar (Undifferentiated)	LF(f)-PL-PBc-ms(m)	22.5841	1	22.5841	22.5841	22.5841	uncommon
Aspen - Pine (Undifferentiated)	LF(n)-AW-PLc-ys(m)	22.7246	1	22.7246	22.7246	22.7246	uncommon
Black Spruce - White Spruce	UF(f)-SB-SWc(m)	22.7434	2	11.3717	11.2959	11.4475	uncommon
Lodgepole Pine - Engelmann Spruce	UF(s)-PL-MXo-ms(m)	22.8346	8	2.8543	0.0000	17.9297	uncommon
Engelmann Spruce	UF(f)-SEc-ms(m)	22.9265	2	11.4632	8.5177	14.4088	uncommon
Aspen - Pine (Undifferentiated)	M(n)-AW-PLc-ys(d)	23.0770	2	11.5385	5.7385	17.3385	uncommon
Black Spruce - Aspen	LF(n)-SB-AWo-ms(m)	23.1051	1	23.1051	23.1051	23.1051	uncommon
Aspen - White Spruce	LF(n)-AW-SWo-ms(m)	23.2107	2	11.6054	9.8652	13.3455	uncommon
Engelmann Spruce - Lodgepole Pine	LF(f)-SE-PLc-ms(m)	23.2494	8	2.9062	0.0186	5.5395	uncommon
Aquatic River	UF(f)-RV	23.2683	68	0.3422	0.0000	6.3519	uncommon
Low Shrubland	M(s)-SCI(d)	23.3309	9	2.5923	0.0000	13.4276	uncommon
White Spruce	SA(n)-SWo-ms(m)	23.3995	1	23.3995	23.3995	23.3995	uncommon
Tall Shrubland	UF(f)-SCT(m)	23.4586	3	7.8195	1.8640	13.2628	uncommon
Engelmann Spruce - Lodgepole Pine	SA(n)-SE-PLc-og(m)	23.4841	2	11.7420	0.8295	22.6546	uncommon
White Spruce	UF(s)-SWo-og(m)	23.6102	2	11.8051	6.5531	17.0570	uncommon
Aspen - Black Spruce	LF(f)-AW-SBc-ms(m)	23.9330	1	23.9330	23.9330	23.9330	uncommon

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Tall Shrubland	M(f)-SCt(d)	24.2101	1	24.2101	24.2101	24.2101	uncommon
Aspen	UF(s)-AWo-ys(d)	24.2818	5	4.8564	1.6855	13.0685	uncommon
White Spruce - Subalpine Fir	UF(f)-SW-FAc-og(m)	24.3065	1	24.3065	24.3065	24.3065	uncommon
Lodgepole Pine - White Spruce	SA(n)-PL-MXc-ys(m)	24.4296	1	24.4296	24.4296	24.4296	uncommon
Shrub / Sapling Clearcut	UF(n)-CC2-SOI(m)	24.4301	4	6.1075	0.1433	12.4683	uncommon
Aspen	UF(s)-AWc-og(d)	24.4671	3	8.1557	0.2684	23.3542	uncommon
Treed Clearing	LF(n)-PL-MXt(m)	24.4907	1	24.4907	24.4907	24.4907	uncommon
Lodgepole Pine	SA(s)-PLc-ms(d)	24.5336	4	6.1334	3.8191	10.7119	uncommon
Aspen - Pine (Undifferentiated)	LF(s)-AW-PLc-ys(m)	24.6615	2	12.3308	5.9396	18.7219	uncommon
Lodgepole Pine	LF(f)-PLc-ys(m)	25.0195	5	5.0039	0.0000	13.7464	uncommon
Engelmann Spruce - Lodgepole Pine	A(s)-SE-PLc-og(m)	25.0268	3	8.3423	0.0973	24.3923	uncommon
Low Shrubland	M(s)-SOI(d)	25.0419	3	8.3473	1.6242	20.2238	uncommon
Pine (Undifferentiated)	LF(n)-PLo-ms(m)	25.1515	4	6.2879	3.1296	9.6604	uncommon
Pine (Undifferentiated) - Aspen	UF(s)-PL-AWo-ms(d)	25.2813	2	12.6406	10.4102	14.8711	uncommon
White Spruce	M(s)-SWc-ms(m)	25.3297	3	8.4432	3.1397	18.2995	uncommon
White Spruce - Black Spruce	LF(f)-SW-MXc-ys(m)	25.5589	1	25.5589	25.5589	25.5589	uncommon
Balsam Poplar	LF(n)-PBc-ms(m)	25.7122	1	25.7122	25.7122	25.7122	uncommon
Lodgepole Pine - White Spruce	M(s)-PL-MXo-ms(d)	25.7848	4	6.4462	4.4035	10.7162	uncommon
Pine (Undifferentiated) - White Spruce	UF(f)-PL-MXo-ms(m)	25.8523	3	8.6174	6.2040	12.3159	uncommon
Aspen - White Spruce	LF(f)-AW-SWc-ys(m)	25.9992	6	4.3332	0.0000	15.8259	uncommon
Treed Clearcut	UF(n)-CC3-SW-MXt(m)-sel	26.0940	1	26.0940	26.0940	26.0940	uncommon
Low Shrubland	UF(f)-SOI(w)	26.1816	8	3.2727	0.4631	10.1714	uncommon
White Spruce - Aspen	UF(n)-SW-AWc-og(m)	26.1863	1	26.1863	26.1863	26.1863	uncommon
Engelmann Spruce	A(n)-SEo-og(m)	26.2377	4	6.5594	0.0103	25.9965	uncommon
Lodgepole Pine - White Spruce	M(n)-PL-MXo-ms(m)	26.4502	1	26.4502	26.4502	26.4502	uncommon
Black Spruce - Tamarack	LF(f)-SB-LTo(w)	26.4858	3	8.8286	5.0342	13.2687	uncommon
Lodgepole Pine - Engelmann Spruce	LF(s)-PL-MXc-ms(m)	26.5968	9	2.9552	0.0561	5.7610	uncommon
Low Shrubland	SA(f)-SCI(m)	26.6710	9	2.9634	0.0000	16.1019	uncommon
Black Spruce - White Spruce	LF(f)-SB-SWc-ys(m)	26.6806	3	8.8935	0.6119	20.2944	uncommon
Black Spruce - White Spruce	LF(f)-SB-SWo-ms(w)	26.8509	6	4.4751	1.5606	14.3145	uncommon
Treed Clearcut	UF(s)-CC3-AWt(m)-sel	26.8655	5	5.3731	1.0521	13.5206	uncommon
Graminoid Clearcut	LF(f)-CC1-GR(w)	26.9412	3	8.9804	8.2888	10.0836	uncommon
Treed Clearing	LF(s)-PLt(m)	27.1036	2	13.5518	5.2573	21.8463	uncommon
Treed Clearcut	LF(f)-SW-SBt(m)-sel	27.1623	1	27.1623	27.1623	27.1623	uncommon
White Spruce - Lodgepole Pine	SA(f)-SW-MXo-ms(w)	27.2101	5	5.4420	0.0750	17.6601	uncommon
White Spruce - Black Spruce	LF(f)-SW-MXo-ys(w)	27.4780	2	13.7390	9.5824	17.8957	uncommon
Rock	SA(s)-RB	27.6153	6	4.6026	0.0086	23.5303	uncommon
Pine (Undifferentiated) - Aspen	UF(n)-PL-AWc-ms(d)	27.7084	2	13.8542	8.8433	18.8651	uncommon
Balsam Poplar	LF(f)-PBc-ms(m)	27.8432	3	9.2811	4.7393	16.2620	uncommon
Aspen - Lodgepole Pine	M(n)-AW-PLc-ms(m)	27.9257	1	27.9257	27.9257	27.9257	uncommon
Lodgepole Pine	UF(f)-PLc-ys(m)	28.1576	3	9.3859	0.6782	21.2959	uncommon
Treed Clearcut	LF(f)-CC3-PL-MXl(m)	28.1910	2	14.0955	10.7282	17.4627	uncommon
Lodgepole Pine - White Spruce	M(f)-PL-MXc-ys(m)	28.1958	1	28.1958	28.1958	28.1958	uncommon

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White Spruce - Pine (Undifferentiated)	UF(s)-SW-MXc-ms(m)	28.4290	9	3.1588	0.2114	12.0261	uncommon
Aspen	LF(s)-AWo-ms(m)	28.5348	2	14.2674	2.8638	25.6710	uncommon
White Spruce	UF(s)-SWo-ms(m)	28.6346	4	7.1586	0.7449	11.4345	uncommon
Black Spruce - Lodgepole Pine	UF(f)-SB-PLc(m)	28.7548	11	2.6141	0.0000	7.0133	uncommon
Lodgepole Pine - Black Spruce	UF(f)-PL-MXo-ms(w)	28.7779	12	2.3982	0.0334	5.9436	uncommon
Tamarack - Black Spruce	LF(f)-LT-SBo(w)	29.1615	2	14.5807	8.7298	20.4317	uncommon
Engelmann Spruce	UF(n)-SEc-og(m)	29.4521	1	29.4521	29.4521	29.4521	uncommon
White Spruce - Aspen	LF(f)-SW-AWo-ms(w)	29.4835	2	14.7417	9.0016	20.4819	uncommon
Treed Burn	SA(n)-BU-PL-MXt(m)	29.7811	7	4.2544	0.0023	13.9775	uncommon
White Spruce - Pine (Undifferentiated)	M(s)-SW-MXc-ms(m)	29.8016	2	14.9008	5.2617	24.5399	uncommon
Treed Clearcut	LF(f)-CC3-SWt(m)	29.9190	2	14.9595	12.9434	16.9756	uncommon
Aspen - White Spruce	M(s)-AW-SWc-og(m)	30.1657	2	15.0829	1.1755	28.9902	uncommon
White Spruce	UF(n)-SWc-ms(w)	30.1954	4	7.5489	1.8967	16.9532	uncommon
Sand	MF(f)-SD	30.1962	26	1.1614	0.0000	29.0338	uncommon
Pine (Undifferentiated)	M(s)-PLc-ys(w)	30.2746	1	30.2746	30.2746	30.2746	uncommon
Sand	LF(f)-SD	30.4838	12	2.5403	0.0001	5.8872	uncommon
Aspen	LF(f)-AWo-og(d)	30.5113	1	30.5113	30.5113	30.5113	uncommon
White Spruce	A(f)-SWo-ms(m)	30.7938	3	10.2646	0.0271	22.4594	uncommon
Pine (Undifferentiated) - Black Spruce	LF(n)-PL-MXc-ms(m)	30.8026	4	7.7007	1.0859	25.1497	uncommon
Balsam Poplar - White Spruce	M(n)-PB-SWc-ms(d)	31.0804	2	15.5402	1.1502	29.9303	uncommon
Aspen - Lodgepole Pine	UF(s)-AW-PLc-og(m)	31.2845	5	6.2569	0.0837	23.8490	uncommon
Lodgepole Pine - Engelmann Spruce	UF(n)-PL-MXc-ys(m)	31.3215	2	15.6608	8.1570	23.1646	uncommon
Treed Burn	UF(f)-BU-SWt(m)	31.8849	6	5.3141	0.6674	10.4538	uncommon
White Spruce	LF(f)-SWo-ms(w)	31.9317	6	5.3220	0.1487	19.0871	uncommon
Low Shrubland	M(s)-SCI(m)	32.0425	5	6.4085	0.3913	15.6567	uncommon
Lodgepole Pine	M(s)-PLc-ms(d)	32.4668	3	10.8223	1.9503	27.9811	uncommon
Engelmann Spruce - Lodgepole Pine	UF(n)-SE-PLo-ms(m)	32.4892	10	3.2489	0.0000	7.8656	uncommon
Aspen - White Spruce	UF(n)-AW-SWo-og(m)	32.7628	3	10.9209	0.0139	24.9055	uncommon
Black Spruce - Tamarack	LF(f)-SB-LTc(w)	32.9178	3	10.9726	7.0456	14.8172	uncommon
Pine (Undifferentiated) - White Spruce	M(s)-PL-MXc-ms(m)	33.0932	4	8.2733	0.3995	20.4058	uncommon
White Spruce - Black Spruce	SA(f)-SW-MXo-ms(w)	33.0982	4	8.2745	0.0001	29.0609	uncommon
Mesic Graminoid	UF(s)-GR(m)	33.1651	11	3.0150	0.0890	6.5788	uncommon
Treed Clearcut	LF(f)-CC3-PLt(m)-sel	33.2969	7	4.7567	0.8260	15.1693	uncommon
Aspen - Pine (Undifferentiated)	UF(s)-AW-PLc-ms(m)	33.5161	7	4.7880	0.1195	20.8390	uncommon
Aspen - White Spruce	M(f)-AW-SWo-ms(d)	33.7222	4	8.4306	0.0000	25.1909	uncommon
Graminoid Clearcut	M(s)-CC1-GR(m)	33.7359	3	11.2453	5.0081	21.2589	uncommon
White Spruce	M(n)-SWo-ms(m)	33.7483	2	16.8742	16.1296	17.6187	uncommon
Lodgepole Pine - Aspen	M(n)-PL-AWo-ys(m)	33.7650	1	33.7650	33.7650	33.7650	uncommon
Aspen - Black Spruce	LF(f)-AW-SBc-ys(m)	33.8175	1	33.8175	33.8175	33.8175	uncommon
Lodgepole Pine - White Spruce	UF(f)-PL-MXo-ys(m)	33.8452	1	33.8452	33.8452	33.8452	uncommon
White Spruce - Lodgepole Pine	M(n)-SW-MXc-ms(m)	33.8506	4	8.4626	4.0745	15.0990	uncommon
Aquatic Lake	LF(f)-LK	34.0411	7	4.8630	0.8847	19.8541	uncommon
Graminoid Clearcut	SA(f)-CC1-GR(m)	34.1096	3	11.3699	1.9326	22.8213	uncommon

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Aspen - White Spruce	M(s)-AW-SWc-ms(d)	34.1324	10	3.4132	0.0000	9.9658	uncommon
Lodgepole Pine - White Spruce	UF(s)-PL-MXo-ms(m)	34.2623	5	6.8525	1.3995	13.5038	uncommon
Pine (Undifferentiated)	LF(n)-PLc-ms(d)	34.5592	2	17.2796	14.2952	20.2640	uncommon
White Spruce - Aspen	M(f)-SW-AWo-og(m)	34.5912	1	34.5912	34.5912	34.5912	uncommon
Black Spruce - Pine (Undifferentiated)	UF(f)-SB-PLc(m)	34.7392	3	11.5797	0.1057	34.2962	uncommon
Reclaimed Industrial	UF(s)-CI	34.8257	15	2.3217	1.4498	4.4926	uncommon
Low Shrubland	UF(s)-SCI(d)	35.1369	2	17.5685	16.9603	18.1766	uncommon
Lodgepole Pine - White Spruce	M(s)-PL-MXo-ms(m)	35.2271	2	17.6135	4.0913	31.1358	uncommon
Black Spruce - Lodgepole Pine	UF(f)-SB-PLc(w)	35.2814	16	2.2051	0.0000	5.5652	uncommon
Lodgepole Pine	UF(n)-PLo-ms(m)	35.5389	8	4.4424	0.2460	10.0858	uncommon
Aspen	M(f)-AWo-ms(m)	35.5985	2	17.7992	14.5940	21.0045	uncommon
Dry Graminoid	UF(n)-GR(d)	35.7663	8	4.4708	0.0271	10.6589	uncommon
Low Shrubland	UF(f)-SOI(m)	35.9572	7	5.1367	0.0000	27.7478	uncommon
Aspen - Lodgepole Pine	LF(n)-AW-PLc-ms(m)	36.3534	7	5.1933	1.0166	17.3051	uncommon
White Spruce - Aspen	UF(n)-SW-AWc-ms(d)	36.5971	1	36.5971	36.5971	36.5971	uncommon
Graminoid Clearcut	UF(s)-CC1-GR(d)	37.0415	8	4.6302	0.2111	12.3309	uncommon
Engelmann Spruce - Lodgepole Pine	A(n)-SE-PLc-ms(m)	37.0924	11	3.3720	0.0002	16.7325	uncommon
Pine (Undifferentiated)	M(s)-PLc-ys(m)	37.4402	2	18.7201	17.8299	19.6103	uncommon
White Spruce - Lodgepole Pine	LF(s)-SW-MXc-ms(m)	37.5670	8	4.6959	2.5495	7.9721	uncommon
Lodgepole Pine - Aspen	UF(s)-PL-AWc-og(m)	37.6239	5	7.5248	1.6248	19.5925	uncommon
Treed Clearcut	LF(f)-CC3-AW-PLt(m)-sel	37.7851	2	18.8926	17.5514	20.2337	uncommon
White Spruce - Pine (Undifferentiated)	LF(f)-SW-MXc-ys(m)	37.8037	9	4.2004	0.0000	21.9228	uncommon
Aspen	LF(s)-AWo-ms(d)	37.9429	2	18.9715	10.6296	27.3133	uncommon
Aspen - Pine (Undifferentiated)	M(f)-AW-PLc-og(d)	38.1515	1	38.1515	38.1515	38.1515	uncommon
Aspen - White Spruce	LF(s)-AW-SWc-ys(m)	38.8497	4	9.7124	7.6481	11.0694	uncommon
Treed Clearcut	LF(n)-PL-AWt(m)	38.9140	1	38.9140	38.9140	38.9140	uncommon
Aspen	LF(f)-AWc-ms(w)	38.9371	1	38.9371	38.9371	38.9371	uncommon
Low Shrubland	M(f)-SOI(m)	39.0039	7	5.5720	0.0000	12.6666	uncommon
White Spruce - Aspen	UF(s)-SW-AWc-ms(m)	39.0789	3	13.0263	7.9455	15.8953	uncommon
Aspen	UF(s)-AWo-ms(d)	39.4424	7	5.6346	0.0373	10.6559	uncommon
Lodgepole Pine - White Spruce	LF(f)-PL-MXo-ms(m)	39.5282	14	2.8234	0.0044	7.3097	uncommon
Lodgepole Pine - Aspen	LF(n)-PL-AWo-ms(m)	39.7066	5	7.9413	0.5614	18.4212	uncommon
Aspen	M(s)-AWo-ms(d)	39.7828	3	13.2609	8.1846	20.5578	uncommon
Pine (Undifferentiated) - Aspen	M(s)-PL-AWc-ms(m)	39.8172	6	6.6362	0.0000	31.9583	uncommon
Aspen - Lodgepole Pine	LF(n)-AW-PLo-ms(m)	39.9141	3	13.3047	0.3452	27.2042	uncommon
Lodgepole Pine - White Spruce	M(s)-PL-MXc-ms(m)	39.9159	3	13.3053	5.1435	21.7793	uncommon
Aspen	M(f)-AWc-ms(d)	40.0756	4	10.0189	1.9764	21.6933	uncommon
Pine (Undifferentiated) - Black Spruce	LF(f)-PL-MXc-ys(m)	40.4643	5	8.0929	0.2619	16.1823	uncommon
White Spruce - Balsam Poplar	UF(f)-SW-PBc-og(m)	40.9609	13	3.1508	0.0000	39.0670	uncommon
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXo-ms(m)	40.9644	3	13.6548	3.8707	22.3373	uncommon
Aspen - White Spruce	UF(n)-AW-SWc-og(m)	41.0139	4	10.2535	0.5165	16.3649	common
Engelmann Spruce	SA(s)-SEc-og(m)	41.3622	8	5.1703	0.0224	20.5734	common
White Spruce - Lodgepole Pine	SA(f)-SW-MXo-ms(m)	41.5925	3	13.8642	1.6325	38.3010	common

Appendix 2.4 - North FMA Wildlife Habitat Units

Balsam Poplar - Lodgepole Pine	LF(n)-PB-PLc-og(m)	41.6658	2	20.8329	8.3917	33.2741	common
White Spruce - Pine (Undifferentiated)	M(n)-SW-MXc-ms(m)	41.6794	4	10.4198	0.2983	33.6682	common
Pine (Undifferentiated) - Aspen	UF(s)-PL-AWc-og(m)	41.8002	2	20.9001	5.0545	36.7457	common
White Spruce	UF(f)-SWo-og(w)	41.9277	7	5.9897	1.5199	24.5388	common
Cutbank	UF(s)-CB	42.0187	9	4.6687	1.2580	11.7432	common
White Spruce - Black Spruce	M(f)-SW-MXc-ms(w)	42.1204	2	21.0602	20.4275	21.6929	common
Pine (Undifferentiated)	UF(f)-PLo-ms(m)	42.2463	4	10.5616	1.8168	26.2592	common
Low Shrubland	LF(s)-SCI(m)	42.3919	4	10.5980	7.0236	15.2054	common
White Spruce - Aspen	LF(f)-SW-AWc-ms(w)	42.5643	6	7.0941	0.0000	15.3709	common
White Spruce - Lodgepole Pine	M(f)-SW-MXo-ms(m)	42.6389	8	5.3299	0.0000	20.7625	common
Lodgepole Pine	UF(f)-PLo-og(m)	42.8873	28	1.5317	0.0000	7.1604	common
White Spruce - Black Spruce	LF(f)-SW-MXo-ms(w)	42.9346	10	4.2935	0.0000	21.7751	common
Pine (Undifferentiated) - Aspen	M(n)-PL-AWc-ms(m)	43.2659	9	4.8073	0.0001	30.2264	common
Treed Clearcut	LF(n)-CC3-AWt(m)-sel	43.7082	9	4.8565	0.0001	25.4973	common
Aspen - White Spruce	M(s)-AW-SWo-ms(d)	43.7978	12	3.6498	0.0000	27.8289	common
Aspen - Lodgepole Pine	LF(n)-AW-PLc-og(m)	44.2218	9	4.9135	0.0033	40.7877	common
Lodgepole Pine	UF(n)-PLc-ys(m)	44.5819	3	14.8606	6.2045	27.0877	common
Treed Clearcut	LF(f)-CC3-PL-MX(m)	44.7533	4	11.1883	4.8454	20.0444	common
White Spruce - Lodgepole Pine	M(f)-SW-MXo-ms(w)	44.9614	4	11.2404	4.4499	20.9382	common
Engelmann Spruce - Aspen	UF(s)-SE-AWc-ms(m)	45.0588	5	9.0118	0.0000	24.5053	common
Aquatic Lake	M(f)-LK	45.1251	8	5.6406	0.7055	11.8027	common
White Spruce - Aspen	M(f)-SW-AWc-og(m)	45.2878	4	11.3220	1.6260	26.2496	common
Industrial Facilities	UF(n)-AI	45.3088	6	7.5515	0.0598	21.7981	common
Pine (Undifferentiated) - Aspen	M(n)-PL-AWc-ms(d)	45.4981	1	45.4981	45.4981	45.4981	common
Engelmann Spruce - Lodgepole Pine	SA(n)-SE-PLc-ms(m)	45.5950	14	3.2568	0.0000	21.4298	common
Pine (Undifferentiated) - White Spruce	M(f)-PL-MXc-ys(m)	45.9323	2	22.9661	7.2108	38.7214	common
Aspen	LF(s)-AWc-og(m)	46.3821	10	4.6382	0.0002	13.2941	common
Aspen	M(f)-AWc-og(m)	46.4359	3	15.4786	6.2309	32.2223	common
White Spruce - Lodgepole Pine	LF(n)-SW-MXo-ms(m)	46.7392	10	4.6739	0.0156	22.0473	common
Pine (Undifferentiated)	M(s)-PLo-ms(d)	46.8789	8	5.8599	0.0042	29.1424	common
Lodgepole Pine - Balsam Poplar	LF(s)-PL-PBc-og(m)	47.0453	5	9.4091	0.0002	20.6729	common
Black Spruce - Pine (Undifferentiated)	LF(f)-SB-PLc-ms(w)	47.7205	8	5.9651	0.0000	12.6306	common
White Spruce - Lodgepole Pine	M(f)-SW-MXc-ms(m)	47.9739	6	7.9956	0.0427	23.9048	common
Low Shrubland	M(f)-SCI(d)	48.1134	6	8.0189	0.0432	38.1737	common
Treed Clearcut	LF(f)-CC3-AWt(m)	48.7711	3	16.2570	3.2302	37.8285	common
Aspen	UF(f)-AWc-og(m)	48.8085	3	16.2695	0.0697	46.3146	common
Engelmann Spruce - Subalpine Fir	SA(f)-SE-FAc-og(m)	48.8108	11	4.4373	0.0000	38.4921	common
White Spruce - Aspen	UF(s)-SW-AWc-og(m)	48.9347	2	24.4674	6.0304	42.9043	common
Treed Clearing	LF(f)-CL-AWt(m)	49.1095	5	9.8219	6.3842	15.0027	common
Aspen - Lodgepole Pine	UF(s)-AW-PLc-ms(d)	49.2743	4	12.3186	2.3212	33.0092	common
Pine (Undifferentiated) - White Spruce	LF(n)-PL-MXc-ys(m)	49.7280	3	16.5760	13.4202	18.3675	common
Aspen - White Spruce	LF(f)-AW-SWo-ms(w)	49.8945	3	16.6315	6.4066	34.7301	common
Treed Burn	SA(f)-BU-PLt(m)	50.1015	14	3.5787	0.0000	20.3729	common

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Lodgepole Pine - White Spruce	SA(f)-PL-MXc-ys(m)	50.6181	1	50.6181	50.6181	50.6181	common
Lodgepole Pine	LF(f)-PLo-ms(m)	50.9066	9	5.6563	0.6077	20.1953	common
White Spruce - Lodgepole Pine	SA(f)-SW-MXc-ms(m)	51.0075	7	7.2868	0.0001	29.0686	common
Aspen - White Spruce	LF(s)-AW-SWc-og(m)	51.4972	3	17.1657	1.7565	38.2696	common
Wet Graminoid	M(f)-GR(w)	51.5578	8	6.4447	1.9365	12.1256	common
Engelmann Spruce - Subalpine Fir	SA(n)-SE-FAc-og(m)	51.7924	1	51.7924	51.7924	51.7924	common
Graminoid Clearcut	M(f)-CC1-GR(m)	52.0830	10	5.2083	0.0001	15.7462	common
White Spruce	LF(s)-SWc-ms(m)	52.2949	11	4.7541	0.1520	13.7034	common
Aspen	LF(s)-AWc-ys(m)	52.3702	8	6.5463	0.9425	26.0629	common
Lodgepole Pine - White Spruce	M(f)-PL-MXo-ms(m)	52.5241	10	5.2524	0.2928	15.0561	common
Lodgepole Pine - Aspen	UF(s)-PL-AWc-ms(d)	52.7937	5	10.5587	1.8987	33.7089	common
Treed Clearcut	LF(f)-CC3-PL-AWt(m)-sel	52.8306	4	13.2077	0.3969	28.5165	common
Engelmann Spruce	SA(n)-SEc-ms(m)	53.0203	4	13.2551	0.0306	51.4058	common
Aquatic Flooded	UF(f)-WL	53.1107	45	1.1802	0.0000	7.0547	common
Black Spruce - Aspen	LF(f)-SB-AWc-ys(m)	53.7212	1	53.7212	53.7212	53.7212	common
Pine (Undifferentiated) - Aspen	UF(n)-PL-AWc-og(m)	53.9296	4	13.4824	0.4821	26.8847	common
Lodgepole Pine - Engelmann Spruce	SA(n)-PL-MXo-ms(m)	54.1186	3	18.0395	0.0000	53.7826	common
Pine (Undifferentiated) - Aspen	UF(s)-PL-AWc-ms(m)	54.3325	10	5.4332	0.0673	23.3429	common
Aquatic Lake	UF(f)-LK	54.4889	10	5.4489	1.0100	18.8544	common
White Spruce - Lodgepole Pine	M(s)-SW-MXo-ms(m)	54.8375	1	54.8375	54.8375	54.8375	common
Lodgepole Pine - Engelmann Spruce	SA(n)-PL-MXc-ms(m)	55.6023	12	4.6335	0.0001	17.9849	common
White Spruce	LF(n)-SWo-ms(m)	55.8014	8	6.9752	0.0067	37.0563	common
Aspen - Lodgepole Pine	LF(f)-AW-PLc-og(m)	56.0026	4	14.0007	4.3066	21.4228	common
Treed Clearcut	UF(n)-CC3-AWt(m)-sel	56.0247	8	7.0031	3.6793	11.1820	common
Pine (Undifferentiated) - White Spruce	UF(s)-PL-MXo-ms(m)	56.3317	2	28.1659	25.5366	30.7951	common
White Spruce - Pine (Undifferentiated)	LF(f)-SW-MXc-og(m)	56.4663	4	14.1166	0.5354	34.9942	common
Aquatic Forb	M(f)-FM(a)	56.6010	2	28.3005	4.9574	51.6436	common
Lodgepole Pine - Engelmann Spruce	UF(f)-PL-MXc-ms(m)	56.8916	27	2.1071	0.0000	16.1213	common
White Spruce	SA(s)-SWc-og(m)	57.0882	2	28.5441	10.6919	46.3963	common
Aspen - White Spruce	M(f)-AW-SWc-ys(m)	57.1139	3	19.0380	9.8948	29.3356	common
Treed Clearcut	LF(f)-SW-MXt(m)-sel	57.2759	3	19.0920	16.5202	22.7203	common
Tall Shrubland	M(f)-SCt(m)	57.3019	6	9.5503	2.5339	34.1773	common
White Spruce	UF(n)-SWo-og(m)	57.9027	6	9.6505	0.5832	22.5947	common
Dry Graminoid	LF(f)-GR(d)	58.0903	10	5.8090	0.7063	34.1305	common
Treed Burn	SA(f)-BU-SW-MXt(m)	58.2763	13	4.4828	0.2311	15.5517	common
Lodgepole Pine - Engelmann Spruce	UF(n)-PL-MXc-ms(m)	58.4564	14	4.1755	0.5195	9.1468	common
White Spruce - Pine (Undifferentiated)	LF(f)-SW-MXo-og(m)	58.5178	1	58.5178	58.5178	58.5178	common
Pine (Undifferentiated) - Aspen	M(s)-PL-AWc-ms(d)	58.7532	17	3.4561	0.0000	21.7313	common
Pine (Undifferentiated) - Aspen	LF(f)-PL-AWc-ms(m)	58.8143	3	19.6048	12.4848	33.4994	common
White Spruce	SA(n)-SWc-og(m)	58.8312	3	19.6104	0.0607	54.7926	common
Lodgepole Pine - Aspen	LF(s)-PL-AWc-ms(m)	59.6316	21	2.8396	0.0159	7.7273	common
White Spruce - Balsam Poplar	UF(f)-SW-PBo-og(m)	59.6628	1	59.6628	59.6628	59.6628	common
Treed Clearcut	LF(f)-CC3-AW-SWt(m)-sel	59.7189	9	6.6354	0.0378	14.6262	common

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Lodgepole Pine	UF(f)-PLc-ms(d)	59.7666	17	3.5157	0.1031	16.6601	common
Aspen	LF(s)-AWc-ys(d)	59.8298	5	11.9660	2.6617	27.0931	common
Lodgepole Pine - White Spruce	LF(s)-PL-MXc-ms(m)	60.0081	18	3.3338	0.1909	7.7678	common
Shrub / Sapling Clearcut	UF(s)-CC2-SCI(m)	60.1240	3	20.0413	4.0986	41.6726	common
Engelmann Spruce - Lodgepole Pine	A(s)-SE-PLc-ms(m)	60.2826	6	10.0471	0.0000	39.3350	common
White Spruce - Subalpine Fir	UF(n)-SW-Fac-og(m)	60.3667	3	20.1222	0.7990	35.3725	common
Pine (Undifferentiated) - Aspen	UF(f)-PL-AWc-ms(m)	60.7403	8	7.5925	0.0142	22.3205	common
White Spruce - Aspen	LF(f)-SW-AWc-ms(m)	60.7739	9	6.7527	0.3044	30.7210	common
Aspen - White Spruce	M(n)-AW-SWc-ms(d)	61.1295	5	12.2259	0.0319	25.6356	common
Pine (Undifferentiated) - Black Spruce	UF(f)-PL-MXc-ms(m)	61.5150	4	15.3788	5.1272	29.3110	common
White Spruce - Aspen	UF(f)-SW-AWc-ms(m)	62.1317	14	4.4380	0.1248	10.1849	common
Lodgepole Pine - White Spruce	UF(n)-PL-MXc-ms(d)	62.5639	7	8.9377	2.1057	24.6914	common
Aspen - Pine (Undifferentiated)	M(n)-AW-PLc-ms(m)	62.7410	5	12.5482	2.3066	28.8517	common
Lodgepole Pine - Aspen	M(s)-PL-AWc-ys(m)	62.8192	1	62.8192	62.8192	62.8192	common
White Spruce - Black Spruce	LF(f)-SW-MXc-ms(w)	62.9074	7	8.9868	7.0345	12.4189	common
White Spruce	SA(f)-SWo-ms(m)	63.1869	5	12.6374	3.2683	22.3808	common
Aquatic River	MF(f)-RV	63.5858	14	4.5418	0.0000	40.2866	common
White Spruce - Aspen	LF(s)-SW-AWc-ms(m)	64.2915	10	6.4291	0.7705	23.2244	common
Aspen - White Spruce	M(n)-AW-SWc-ms(m)	64.3066	17	3.7827	0.0000	16.1119	common
Annual Cropland	LF(f)-CA	64.4380	8	8.0548	0.0001	22.8628	common
Graminoid Clearing	LF-CL-GR(m)	64.4717	7	9.2102	1.6016	26.6978	common
Lodgepole Pine	SA(n)-PLc-og(m)	64.5356	4	16.1339	0.2651	55.8385	common
Treed Burn	SA(s)-BU-PLt(m)	64.7018	1	64.7018	64.7018	64.7018	common
White Spruce	UF(f)-SWo-og(m)	64.9579	7	9.2797	0.0124	44.0592	common
Lodgepole Pine - Engelmann Spruce	SA(s)-PL-MXc-ms(m)	64.9993	3	21.6664	0.0000	64.0479	common
Lodgepole Pine - Black Spruce	UF(n)-PL-MXc-ms(m)	65.3302	17	3.8430	0.0827	12.2953	common
Pine (Undifferentiated) - Balsam Poplar	LF(f)-PL-PBc-ms(m)	65.4655	3	21.8218	4.2361	54.9293	common
Treed Clearcut	LF(f)-CC3-AWl(m)	65.6631	4	16.4158	0.0000	43.1583	common
Lodgepole Pine	M(f)-PLc-ys(m)	66.3141	4	16.5785	0.0777	58.4688	common
Aspen - Lodgepole Pine	LF(f)-AW-PLo-og(m)	66.4830	2	33.2415	18.5798	47.9032	common
Lodgepole Pine - White Spruce	UF(s)-PL-MXo-ms(d)	66.5031	6	11.0838	3.0396	22.3535	common
White Spruce	M(f)-SWo-ms(m)	66.9551	11	6.0868	0.7371	18.3620	common
Treed Clearcut	LF(n)-CC3-AW-PLt(m)-sel	67.5389	1	67.5389	67.5389	67.5389	common
Engelmann Spruce - Lodgepole Pine	UF(n)-SE-PLc-ms(m)	67.7470	10	6.7747	0.0000	20.3022	common
Pine (Undifferentiated) - Aspen	M(n)-PL-AWc-og(m)	68.0131	2	34.0066	0.5519	67.4613	common
Balsam Poplar - White Spruce	M(n)-PB-SWc-ms(m)	68.2296	1	68.2296	68.2296	68.2296	common
White Spruce - Aspen	UF(f)-SW-AWc-ms(w)	68.3643	8	8.5455	0.0905	17.5980	common
Aspen - Pine (Undifferentiated)	M(n)-AW-PLc-ms(d)	68.3904	1	68.3904	68.3904	68.3904	common
Pine (Undifferentiated) - Aspen	M(s)-PL-AWc-og(m)	68.5980	2	34.2990	0.0003	68.5978	common
Lodgepole Pine - White Spruce	UF(f)-PL-MXc-ms(w)	69.5506	11	6.3228	1.1044	14.7564	common
White Spruce - Pine (Undifferentiated)	LF(s)-SW-MXc-ms(m)	69.5708	4	17.3927	4.6844	39.7701	common
Pine (Undifferentiated) - Aspen	M(f)-PL-AWc-og(d)	70.6820	1	70.6820	70.6820	70.6820	common
White Spruce - Black Spruce	UF(f)-SW-MXc-ms(m)	70.7026	13	5.4387	0.0663	21.5301	common

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White Spruce	SA(n)-SWc-ms(m)	70.7140	7	10.1020	0.0000	28.9472	common
Lodgepole Pine - Aspen	M(f)-PL-AWc-og(m)	71.3163	3	23.7721	5.6698	46.8161	common
Lodgepole Pine - Engelmann Spruce	LF(f)-PL-MXc-ms(m)	71.6471	18	3.9804	1.5753	6.4652	common
Engelmann Spruce - Lodgepole Pine	LF(n)-SE-PLc-ms(m)	73.5853	17	4.3285	0.8640	8.7370	common
Lodgepole Pine - White Spruce	UF(s)-PL-MXc-ms(d)	74.3777	7	10.6254	2.7594	28.9984	common
White Spruce - Black Spruce	UF(f)-SW-MXo-ms(w)	74.4848	10	7.4485	0.0740	37.9431	common
Lodgepole Pine - Balsam Poplar	UF(s)-PL-PBc-og(m)	74.5710	2	37.2855	0.0430	74.5280	common
White Spruce - Lodgepole Pine	UF(f)-SW-MXo-ms(m)	75.0302	10	7.5030	0.0316	18.9375	common
Aspen	M(n)-AWc-ms(d)	75.2132	2	37.6066	4.3871	70.8261	common
White Spruce	UF(f)-SWc-ms(w)	75.5495	16	4.7218	0.0161	29.4817	common
Low Shrubland	UF(s)-SCI(w)	75.7115	71	1.0664	0.0000	23.1914	common
White Spruce - Balsam Poplar	UF(s)-SW-PBc-og(m)	76.2657	2	38.1328	0.0927	76.1730	common
Aspen - Pine (Undifferentiated)	LF(n)-AW-PLc-og(m)	76.6198	3	25.5399	1.4150	56.7407	common
Pine (Undifferentiated)	LF(f)-PLo-og(m)	76.7283	3	25.5761	10.6583	55.2549	common
White Spruce - Aspen	M(s)-SE-AWc-ms(d)	77.7574	12	6.4798	0.0001	23.1339	common
Treed Clearcut	UF(f)-CC3-PLt(m)	78.9626	19	4.1559	0.0000	23.1864	common
Aspen	M(n)-AWc-og(m)	79.1534	7	11.3076	0.0000	63.1950	common
Treed Clearcut	LF(f)-SW-MXt(m)	79.3788	4	19.8447	4.2982	39.3903	common
White Spruce - Lodgepole Pine	UF(s)-SW-MXc-og(m)	79.8668	7	11.4095	2.4851	27.7941	common
White Spruce - Lodgepole Pine	UF(n)-SW-MXo-ms(m)	80.2118	11	7.2920	0.1183	30.3199	common
Pine (Undifferentiated) - White Spruce	UF(f)-PL-MXc-og(m)	80.7970	5	16.1594	0.0046	61.0650	common
White Spruce	SA(f)-SWo-ms(w)	80.8626	16	5.0539	0.0001	20.3813	common
Low Shrubland	LF(f)-SOI(m)	82.0013	22	3.7273	0.0001	16.2891	common
Pine (Undifferentiated) - White Spruce	UF(s)-PL-MXc-ms(d)	82.8004	3	27.6001	10.6420	53.4261	common
Aspen	LF(f)-AWo-og(m)	82.9122	12	6.9094	0.0000	28.5448	common
Pine (Undifferentiated)	LF(f)-PLo-ms(m)	83.7602	5	16.7520	0.0021	41.5437	common
Treed Clearcut	M(f)-CC3-AWt(m)-sel	84.1884	14	6.0135	0.1167	17.0163	common
Aspen	LF(f)-AWo-ms(m)	84.3592	15	5.6239	0.0001	24.6672	common
Pine (Undifferentiated) - White Spruce	M(n)-PL-MXo-ms(m)	84.8310	4	21.2078	0.0001	83.7785	common
Lodgepole Pine - Aspen	M(n)-PL-AWc-ms(m)	84.9191	4	21.2298	0.4068	69.5626	common
Lodgepole Pine - Black Spruce	UF(f)-PL-MXc-ms(m)	85.7111	24	3.5713	0.0001	19.6008	common
Forb Meadow	M(f)-FM(w)	85.7273	8	10.7159	0.7543	47.5443	common
Lodgepole Pine	UF(f)-PLc-og(m)	85.8501	40	2.1463	0.0000	16.8401	common
Aspen - Lodgepole Pine	M(f)-AW-PLc-ms(m)	85.8908	8	10.7363	2.3872	23.0938	common
Industrial Facilities	M(f)-AI	86.1380	10	8.6138	0.7876	22.5001	common
White Spruce	SA(n)-SWo-og(m)	86.2524	3	28.7508	5.9267	53.7792	common
Aspen - White Spruce	M(s)-AW-SWc-ys(d)	86.3199	6	14.3866	2.8870	30.1474	common
Aspen - Lodgepole Pine	LF(s)-AW-PLc-ms(m)	86.8262	17	5.1074	0.3305	26.3146	common
Black Spruce	M(f)-SBo(w)	87.3066	8	10.9133	0.0001	61.5962	common
Aspen - White Spruce	M(f)-AW-SWc-og(m)	88.1054	7	12.5865	0.7941	32.7280	common
Pine (Undifferentiated) - Aspen	LF(s)-PL-AWc-og(d)	88.4949	4	22.1237	0.4417	58.7751	common
Aspen - Pine (Undifferentiated)	UF(n)-AW-PLc-og(m)	89.0844	9	9.8983	0.0121	36.8443	common
Lodgepole Pine	UF(s)-PLc-ys(m)	89.7634	5	17.9527	4.9221	50.0715	common



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Pine (Undifferentiated)	M(s)-PLo-ms(m)	92.0156	3	30.6719	19.1140	51.5028	common
Dry Graminoid	LF(s)-GR(d)	93.3038	15	6.2203	0.3907	18.9802	common
Aspen - White Spruce	LF(f)-AW-SWc-ms(m)	93.9086	8	11.7386	0.1371	34.9327	common
Mesic Graminoid	M(f)-GR(m)	95.0494	23	4.1326	0.0000	24.6960	common
Lodgepole Pine - Aspen	LF(s)-PL-AWc-og(m)	95.5622	13	7.3509	0.0001	46.5991	common
White Spruce - Lodgepole Pine	SA(s)-SW-MXc-ms(m)	97.0589	11	8.8235	0.0000	39.4694	common
Aspen - White Spruce	UF(n)-AW-SWc-ms(m)	97.8924	5	19.5785	2.2778	69.7831	common
Aspen - White Spruce	UF(s)-AW-SWc-ms(m)	97.9716	9	10.8857	1.2279	23.1075	common
Aspen - Pine (Undifferentiated)	M(f)-AW-PLc-ms(m)	98.3891	9	10.9321	0.4725	40.2983	common
Treed Clearcut	LF(f)-CC3-PL-MXt(m)-sel	98.7615	11	8.9783	0.0000	34.5433	common
Lodgepole Pine - White Spruce	UF(f)-PL-MXo-ms(m)	98.8237	25	3.9529	0.0079	25.8542	common
Lodgepole Pine - White Spruce	M(f)-PL-MXc-ms(m)	99.0376	13	7.6183	0.0235	16.5431	common
White Spruce - Lodgepole Pine	SA(f)-SW-MXc-og(m)	99.2052	9	11.0228	0.0000	56.1949	common
Aspen	LF(s)-AWc-ms(d)	99.5434	9	11.0604	0.1286	25.5260	common
White Spruce - Lodgepole Pine	UF(f)-SW-MXc-ms(w)	100.0969	19	5.2683	0.6768	15.0894	common
Aspen - Pine (Undifferentiated)	UF(n)-AW-PLc-ms(m)	100.1305	8	12.5163	3.8797	22.1792	common
Aspen - White Spruce	M(s)-AW-SWc-ms(m)	101.8364	20	5.0918	0.0001	55.3630	common
White Spruce - Balsam Poplar	LF(f)-SW-PBc-ms(m)	102.9914	8	12.8739	1.2712	57.0910	common
White Spruce	UF(s)-SWc-ms(m)	103.2666	18	5.7370	0.0124	21.0950	common
Lodgepole Pine - White Spruce	UF(f)-PL-MXc-og(m)	103.8044	6	17.3007	1.3049	86.0710	common
Aspen - Lodgepole Pine	UF(f)-AW-PLc-ms(m)	104.1849	24	4.3410	0.1232	18.8772	common
Aspen	UF(n)-AWc-ms(d)	104.9240	5	20.9848	5.1471	46.5721	common
Reclaimed Industrial	UF(f)-CI	105.0615	41	2.5625	0.0000	35.2885	common
Shrub / Sapling Clearcut	UF(n)-CC2-SCI(m)	105.2749	7	15.0393	0.1580	50.3628	common
Aspen - Pine (Undifferentiated)	LF(s)-AW-PLc-ms(m)	107.0155	10	10.7015	2.3710	28.0831	common
White Spruce - Lodgepole Pine	SA(s)-SW-MXc-og(m)	107.0390	5	21.4078	0.0218	64.1219	common
Black Spruce	LF(f)-SBc(m)	109.8663	26	4.2256	0.0000	11.4612	common
Pine (Undifferentiated) - Balsam Poplar	LF(f)-PL-PBc-og(m)	110.5808	5	22.1162	9.4899	43.7634	common
Lodgepole Pine - Engelmann Spruce	LF(n)-PL-MXc-ms(m)	111.0134	28	3.9648	0.0301	12.7690	common
Black Spruce	M(f)-SBo(m)	111.1405	22	5.0518	0.0000	46.4587	common
Pine (Undifferentiated) - Balsam Poplar	LF(s)-PL-PBc-og(m)	111.6244	5	22.3249	0.0190	71.4706	common
Industrial Facilities	LF(s)-AI	112.0379	11	10.1853	0.0006	82.3081	common
Lodgepole Pine - Aspen	LF(n)-PL-AWc-ms(m)	112.6860	20	5.6343	0.1964	35.4758	common
White Spruce - Lodgepole Pine	LF(n)-SW-MXc-ms(m)	114.9118	27	4.2560	0.3802	12.2529	common
Low Shrubland	M(f)-SOI(w)	115.2749	9	12.8083	0.0000	72.5385	common
Aspen	M(n)-AWc-ms(m)	119.2175	11	10.8380	0.0001	30.5755	common
Low Shrubland	LF(f)-SOI(w)	119.7048	24	4.9877	0.0000	32.9284	common
Lodgepole Pine - White Spruce	UF(n)-PL-MXo-ms(m)	122.4126	14	8.7438	0.0704	44.4761	abundant
Pine (Undifferentiated) - White Spruce	UF(f)-PL-MXc-ms(d)	123.5271	12	10.2939	0.0001	67.6567	abundant
Graminoid Clearcut	UF(f)-CC1-GR(d)	124.0179	11	11.2744	0.0561	42.5492	abundant
Aspen - White Spruce	LF(n)-AW-SWc-og(m)	124.4106	6	20.7351	0.0254	77.7509	abundant
White Spruce	UF(n)-SWo-ms(m)	124.8726	14	8.9195	1.6908	24.8398	abundant
Lodgepole Pine - White Spruce	LF(n)-PL-MXc-ms(m)	125.3374	32	3.9168	0.0000	14.8569	abundant

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Treed Clearcut	UF(f)-CC3-SW-AWl(m)	125.4469	3	41.8156	0.0071	125.3803	abundant
Aquatic Flooded	LF(f)-WL	128.0112	39	3.2823	0.2917	13.4947	abundant
White Spruce	SA(s)-SWc-ms(m)	129.7345	11	11.7940	0.0000	82.8238	abundant
Graminoid Clearing	UF(f)-CL-GR(m)	132.1379	34	3.8864	0.0000	44.7090	abundant
Lodgepole Pine - Aspen	LF(f)-PL-AWc-og(m)	132.6806	7	18.9544	0.0001	111.8692	abundant
Engelmann Spruce - Subalpine Fir	SA(s)-SE-FAc-ms(m)	133.4768	6	22.2461	0.0000	132.2475	abundant
White Spruce	UF(s)-SWc-og(m)	134.9621	23	5.8679	0.0000	30.4063	abundant
Black Spruce	UF(f)-SBo(w)	135.1773	38	3.5573	0.0000	10.8879	abundant
Lodgepole Pine - Aspen	UF(n)-PL-AWc-og(m)	136.1773	6	22.6962	0.2020	42.8273	abundant
Treed Clearcut	LF(f)-CC3-AW-PLt(m)	136.7866	6	22.7978	3.6725	78.2036	abundant
Aspen	M(s)-AWc-ys(d)	137.1458	9	15.2384	0.1641	60.5856	abundant
Aspen - Pine (Undifferentiated)	UF(s)-AW-PLc-og(m)	137.2326	2	68.6163	0.1863	137.0464	abundant
Aspen	UF(f)-AWc-ms(m)	138.1796	23	6.0078	0.0319	27.2925	abundant
Black Spruce - White Spruce	LF(f)-SB-SWc-ms(w)	138.4152	13	10.6473	0.9755	45.3646	abundant
Pine (Undifferentiated) - Aspen	LF(n)-PL-AWc-og(m)	138.4637	11	12.5876	0.0000	38.0115	abundant
Reclaimed Industrial	LF(f)-CI	140.2516	51	2.7500	0.0000	14.5676	abundant
Pine (Undifferentiated) - Aspen	LF(n)-PL-AWc-ms(m)	141.8558	10	14.1856	0.0839	33.9849	abundant
Pine (Undifferentiated) - Aspen	LF(s)-PL-AWc-og(m)	143.5467	16	8.9717	0.0002	47.9045	abundant
Treed Clearcut	LF(f)-CC3-AW-SWt(m)	143.7930	4	35.9482	8.2065	100.1524	abundant
Treed Clearcut	LF(f)-CC3-PL-AWt(m)	146.3014	5	29.2603	6.3369	76.7916	abundant
Black Spruce - White Spruce	LF(f)-SB-SWc-ms(m)	148.6297	24	6.1929	0.0000	19.7359	abundant
White Spruce - Pine (Undifferentiated)	M(f)-SW-MXc-ms(m)	149.3447	17	8.7850	0.0591	39.1028	abundant
White Spruce	LF(f)-SWc-og(m)	149.5127	22	6.7960	0.0000	65.9900	abundant
Pine (Undifferentiated) - Aspen	M(f)-PL-AWc-og(m)	149.6875	6	24.9479	0.3369	68.7839	abundant
White Spruce - Aspen	UF(n)-SW-AWc-ms(m)	153.2465	10	15.3246	0.6197	37.6402	abundant
Treed Clearcut	UF(f)-CC3-AWt(m)-sel	153.3886	18	8.5216	0.2801	22.9222	abundant
Treed Clearcut	LF(f)-CC3-PLt(m)	156.0618	26	6.0024	0.0000	32.1259	abundant
Industrial Facilities	UF(s)-AI	158.1071	12	13.1756	0.0229	66.6104	abundant
Graminoid Clearcut	LF(s)-CC1-GR(m)	158.6069	18	8.8115	0.1340	32.0558	abundant
Aspen	UF(n)-AWc-og(m)	159.0042	12	13.2503	0.0000	44.0710	abundant
White Spruce - Subalpine Fir	SA(f)-SW-FAc-og(m)	161.5768	3	53.8589	0.0954	152.4356	abundant
Treed Burn	SA(n)-BU-PLt(m)	162.1179	2	81.0589	0.4765	161.6414	abundant
Pine (Undifferentiated)	M(s)-PLc-ms(d)	164.3083	14	11.7363	0.0000	43.5903	abundant
Industrial Facilities	UF(f)-AI	165.6071	18	9.2004	0.0717	74.0625	abundant
White Spruce	M(f)-SWo-ms(w)	167.0377	27	6.1866	0.0000	39.7584	abundant
White Spruce	SA(f)-SWc-ms(m)	167.7431	28	5.9908	0.0000	68.3056	abundant
Black Spruce	UF(f)-SBc(w)	168.3152	62	2.7148	0.0000	19.0165	abundant
White Spruce - Aspen	M(f)-SW-AWc-ms(m)	169.9785	4	42.4946	9.2999	117.8271	abundant
White Spruce - Pine (Undifferentiated)	UF(f)-SW-MXc-ms(m)	171.8638	42	4.0920	0.0001	19.7077	abundant
Dry Graminoid	UF(s)-GR(d)	172.3987	45	3.8311	0.0000	18.8312	abundant
Engelmann Spruce	SA(f)-SEc-ms(m)	173.9800	13	13.3831	0.0001	160.9381	abundant
Pine (Undifferentiated) - White Spruce	UF(n)-PL-MXc-ms(m)	176.8749	18	9.8264	0.0219	30.4198	abundant
White Spruce - Lodgepole Pine	LF(f)-SW-MXc-ms(m)	179.0747	51	3.5113	0.0000	16.9322	abundant

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White Spruce - Lodgepole Pine	SA(n)-SW-MXc-ms(m)	179.2184	24	7.4674	0.0000	46.3141	abundant
Lodgepole Pine - Balsam Poplar	LF(f)-PL-PBc-og(m)	184.2972	3	61.4324	26.8561	123.1945	abundant
Perennial Cropland	UF(f)-CP	186.2069	15	12.4138	0.3391	81.5657	abundant
White Spruce - Lodgepole Pine	SA(n)-SW-MXc-og(m)	187.5437	11	17.0494	0.0000	118.9209	abundant
Treed Clearcut	LF(f)-SW-AWt(m)	192.7573	3	64.2524	0.2516	192.1102	abundant
Treed Clearcut	LF(f)-SW-AWt(m)-sel	193.0187	7	27.5741	0.0002	122.9805	abundant
Lodgepole Pine - White Spruce	UF(f)-PL-MXo-ms(w)	193.6103	11	17.6009	0.0606	134.3397	abundant
Aspen	UF(s)-AWc-og(m)	196.8060	11	17.8915	0.0003	98.7704	abundant
Aspen - Lodgepole Pine	M(s)-AW-PLc-ms(m)	198.3877	6	33.0646	5.1971	91.6793	abundant
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXo-og(m)	200.5988	3	66.8663	0.0192	150.2770	abundant
Low Shrubland	UF(s)-SCI(m)	201.0545	19	10.5818	0.0004	86.6132	abundant
Treed Burn	UF(f)-BU-PLt(m)	205.3837	7	29.3405	0.1128	113.0837	abundant
White Spruce	UF(f)-SWo-ms(w)	205.7771	38	5.4152	0.2475	24.0448	abundant
Aspen	M(s)-AWc-ms(d)	206.2615	15	13.7508	0.0223	75.6044	abundant
Pine (Undifferentiated)	M(f)-PLc-ys(m)	207.8936	8	25.9867	0.0002	117.6548	abundant
Treed Clearcut	LF(f)-CC3-SWt(m)-sel	207.9256	11	18.9023	0.0001	102.8217	abundant
White Spruce	SA(f)-SWc-og(m)	208.1335	17	12.2431	0.0000	91.0304	abundant
White Spruce	SA(f)-SWo-og(m)	210.2006	6	35.0334	0.0000	103.0425	abundant
Aspen - Pine (Undifferentiated)	LF(s)-AW-PLc-og(m)	212.4154	16	13.2760	0.0000	81.6474	abundant
Graminoid Clearing	LF(f)-CL-GR(m)	215.3089	41	5.2514	0.1546	38.6669	abundant
Pine (Undifferentiated) - Aspen	LF(f)-PL-AWc-ys(m)	215.8316	8	26.9789	0.3031	77.7897	abundant
Forb Meadow	UF(f)-FM(w)	218.3576	17	12.8446	0.0097	75.5529	abundant
Lodgepole Pine - Aspen	M(f)-PL-AWc-ms(m)	220.9026	16	13.8064	0.0000	53.6732	abundant
Pine (Undifferentiated) - Aspen	UF(n)-PL-AWc-ms(m)	222.5644	14	15.8975	0.0205	117.6092	abundant
Lodgepole Pine	M(s)-PLo-ms(m)	222.7794	4	55.6949	0.3862	178.4889	abundant
Pine (Undifferentiated) - Aspen	M(f)-PL-AWc-ms(m)	223.1687	23	9.7030	0.0686	28.4725	abundant
White Spruce - Balsam Poplar	LF(f)-SW-PBc-og(m)	223.7916	9	24.8657	0.2829	121.6606	abundant
White Spruce - Aspen	M(n)-SW-AWc-ms(m)	225.5463	22	10.2521	0.0000	54.7387	abundant
Pine (Undifferentiated) - Black Spruce	LF(f)-PL-MXc-ms(m)	226.3420	20	11.3171	0.0000	49.5710	abundant
Lodgepole Pine - White Spruce	SA(s)-PL-MXc-ms(m)	226.4881	15	15.0992	0.0013	49.2056	abundant
Aspen - Pine (Undifferentiated)	LF(n)-AW-PLc-ms(m)	227.4884	11	20.6808	0.0000	52.9690	abundant
White Spruce - Aspen	LF(n)-SW-AWc-ms(m)	227.5455	36	6.3207	0.0000	37.5877	abundant
Aquatic River	LF(f)-RV	228.7778	54	4.2366	0.0000	81.9260	abundant
Pine (Undifferentiated) - Aspen	LF(s)-PL-AWc-ms(m)	229.5681	16	14.3480	0.0000	38.4467	abundant
White Spruce	M(n)-SWc-ms(m)	230.9190	11	20.9926	2.0487	68.4214	abundant
Aspen	UF(s)-AWc-ms(d)	234.4342	17	13.7902	0.5096	40.5477	abundant
Wet Graminoid	SA(f)-GR(w)	234.9725	30	7.8324	0.0202	69.2625	abundant
Shrub / Sapling Clearcut	UF(f)-CC2-SOL(m)	235.8622	18	13.1035	0.0114	61.0746	abundant
White Spruce - Lodgepole Pine	UF(f)-SW-MXo-ms(w)	236.9465	33	7.1802	0.0000	42.7804	abundant
Aspen - White Spruce	LF(s)-AW-SWc-ms(m)	240.2604	22	10.9209	0.0000	51.6949	abundant
Aspen - Lodgepole Pine	UF(n)-AW-PLc-ms(m)	246.0102	18	13.6672	0.0999	67.6557	abundant
Pine (Undifferentiated) - White Spruce	UF(n)-PL-MXc-og(m)	248.6063	7	35.5152	0.0087	142.3556	abundant
Black Spruce	LF(f)-SBc(w)	250.3127	63	3.9732	0.0000	33.7038	abundant

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Aspen - Lodgepole Pine	LF(f)-AW-PLc-ms(m)	252.1708	46	5.4820	0.0000	49.9898	abundant
Shrub / Sapling Clearcut	LF(f)-CC2-SO(m)	252.4465	18	14.0248	0.0914	33.8704	abundant
White Spruce - Aspen	M(s)-SE-AWc-ms(m)	253.1810	22	11.5082	0.0000	82.5897	abundant
Engelmann Spruce	SA(s)-SEc-ms(m)	254.8074	6	42.4679	0.0249	236.4944	abundant
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXc-og(m)	256.5894	4	64.1474	2.4092	158.8023	abundant
Dry Graminoid	MF(s)-GR(d)	257.3416	42	6.1272	0.0001	38.6358	abundant
Aspen	LF(n)-AWc-og(m)	257.5316	12	21.4610	0.0001	81.4273	abundant
Black Spruce	LF(f)-SBo(w)	264.2896	50	5.2858	0.0000	39.1447	abundant
Treed Clearcut	LF(f)-CC3-PL(m)	268.4411	22	12.2019	0.0000	45.2075	abundant
Lodgepole Pine	UF(f)-PLo-ms(m)	273.4199	49	5.5800	0.0001	89.6306	abundant
Aspen	UF(n)-AWc-ms(m)	280.5056	31	9.0486	0.0001	57.1748	abundant
Lodgepole Pine	LF(s)-PLc-ms(m)	281.2705	71	3.9616	0.0000	12.9552	abundant
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXc-ys(m)	286.5315	12	23.8776	0.1753	131.5077	abundant
Graminoid Clearcut	LF(n)-CC1-GR(m)	288.4660	26	11.0948	1.1971	26.3513	abundant
Treed Clearcut	LF(f)-CC3-AWt(m)-sel	289.2201	43	6.7260	0.0001	23.3878	abundant
Lodgepole Pine - White Spruce	SA(f)-PL-MXc-ms(m)	292.0583	38	7.6857	0.0001	118.3333	abundant
Pine (Undifferentiated) - Balsam Poplar	UF(f)-PL-PBc-og(m)	293.2937	12	24.4411	0.1019	111.8354	abundant
White Spruce	UF(n)-SWc-og(m)	294.5359	22	13.3880	0.6893	71.0516	abundant
Pine (Undifferentiated) - Aspen	M(n)-PL-AWc-ms(m)	295.1565	14	21.0826	0.0003	86.1685	abundant
Treed Burn	UF(n)-BU-PLt(m)	295.7962	15	19.7197	0.0000	244.1539	abundant
Aspen - Lodgepole Pine	UF(s)-AW-PLc-ms(m)	297.8918	33	9.0270	0.1322	31.5307	abundant
Pine (Undifferentiated) - Aspen	LF(f)-PL-AWc-og(m)	302.1854	21	14.3898	0.0000	50.2773	abundant
White Spruce - Lodgepole Pine	UF(n)-SW-MXc-og(m)	309.4223	12	25.7852	1.3697	100.2752	abundant
Low Shrubland	SA(f)-SCl(w)	311.2408	107	2.9088	0.0000	78.1339	abundant
Lodgepole Pine - Aspen	UF(f)-PL-AWc-ms(m)	313.9003	53	5.9226	0.0000	35.3079	abundant
Aspen - Pine (Undifferentiated)	LF(f)-AW-PLc-og(m)	314.2124	18	17.4562	0.0000	57.9077	abundant
Pine (Undifferentiated) - White Spruce	UF(s)-PL-MXc-ms(m)	316.5522	24	13.1897	0.1809	75.8828	abundant
Aspen - Pine (Undifferentiated)	LF(f)-AW-PLc-ys(m)	319.2649	18	17.7369	0.0000	98.6856	abundant
White Spruce	LF(f)-SWo-ms(m)	322.1378	35	9.2039	0.0000	65.0266	abundant
Lodgepole Pine	M(f)-PLo-ms(m)	322.7380	16	20.1711	0.7957	74.1293	abundant
Lodgepole Pine - White Spruce	M(n)-PL-MXc-ms(m)	324.8398	13	24.9877	0.0000	155.9865	abundant
Shrub / Sapling Clearcut	UF(f)-CC2-SCl(m)	332.9724	21	15.8558	0.0627	49.6039	abundant
Perennial Cropland	M(f)-CP	339.5127	43	7.8956	0.0000	52.6451	abundant
Aspen - White Spruce	M(f)-AW-SWc-ms(m)	342.1779	37	9.2481	0.0000	55.6129	abundant
Lodgepole Pine	M(s)-PLc-ms(m)	347.3285	19	18.2804	0.1614	147.0121	abundant
White Spruce	LF(n)-SWc-ms(m)	349.0553	33	10.5774	0.1039	53.3843	abundant
Pine (Undifferentiated)	UF(s)-PLc-ms(d)	351.8676	15	23.4578	0.0099	113.5543	abundant
White Spruce - Aspen	LF(f)-SW-AWc-og(m)	356.8366	38	9.3904	0.0000	80.9275	abundant
White Spruce - Pine (Undifferentiated)	LF(n)-SW-MXc-ms(m)	357.2480	30	11.9083	0.0000	62.5279	abundant
White Spruce - Aspen	M(f)-SW-AWc-ms(m)	358.3369	40	8.9584	0.0000	29.9939	abundant
Dry Graminoid	MF(f)-GR(d)	358.5930	26	13.7920	0.0001	150.5663	abundant
Pine (Undifferentiated) - White Spruce	M(n)-PL-MXc-ms(m)	361.1397	15	24.0760	0.0000	165.7353	abundant
White Spruce - Lodgepole Pine	UF(f)-SW-MXc-og(m)	366.3526	33	11.1016	0.0010	72.6362	abundant

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Wet Graminoid	LF(f)-GR(w)	366.9787	35	10.4851	0.0023	63.0743	abundant
White Spruce	UF(f)-SWo-ms(m)	371.5966	26	14.2922	0.1680	60.7749	abundant
White Spruce	UF(f)-SWc-og(m)	377.6866	27	13.9884	0.0000	67.2220	abundant
Lodgepole Pine	UF(n)-PLc-ms(d)	385.4790	38	10.1442	1.2236	60.3337	abundant
White Spruce	M(f)-SWc-ms(m)	386.2910	36	10.7303	0.0000	52.9604	abundant
Lodgepole Pine	SA(s)-PLc-ms(m)	392.7526	32	12.2735	0.0000	117.3191	abundant
Aspen - White Spruce	LF(n)-AW-SWc-ms(m)	394.8914	14	28.2065	0.0014	114.8250	abundant
Pine (Undifferentiated) - White Spruce	LF(n)-PL-MXc-ms(m)	395.5309	26	15.2127	0.0001	57.5626	abundant
Lodgepole Pine	LF(n)-PLc-ms(m)	399.1343	68	5.8696	0.0000	42.4610	abundant
Aspen	M(f)-AWc-ms(m)	425.9423	39	10.9216	0.0000	36.6904	abundant
Lodgepole Pine - Aspen	M(s)-PL-AWc-ms(m)	446.5295	13	34.3484	1.8145	85.9172	abundant
White Spruce - Black Spruce	LF(f)-SW-MXc-ms(m)	448.8758	51	8.8015	0.0000	38.1396	abundant
Pine (Undifferentiated)	M(s)-PLc-ms(m)	459.3410	22	20.8791	0.0041	182.5652	abundant
Aspen	LF(n)-AWc-ms(m)	460.4514	53	8.6878	0.0000	73.0278	abundant
Mesic Graminoid	UF(f)-GR(m)	468.9206	101	4.6428	0.0000	71.3354	abundant
Pine (Undifferentiated) - White Spruce	LF(s)-PL-MXc-ms(m)	479.6129	34	14.1063	0.0000	69.9538	abundant
White Spruce	UF(f)-SWc-ms(m)	486.2858	57	8.5313	0.0012	61.7392	abundant
Aspen - White Spruce	LF(f)-AW-SWc-og(m)	492.1817	44	11.1859	0.0001	73.0126	abundant
Lodgepole Pine	UF(s)-PLc-ms(d)	492.4601	41	12.0112	0.1051	76.9519	abundant
Aspen - Pine (Undifferentiated)	LF(f)-AW-PLc-ms(m)	495.4252	47	10.5410	0.0002	69.9929	abundant
Lodgepole Pine - White Spruce	LF(f)-PL-MXc-ms(m)	498.2728	103	4.8376	0.0000	46.9972	abundant
Aspen	UF(s)-AWc-ms(m)	500.3816	53	9.4412	0.0038	78.6439	abundant
Industrial Facilities	LF(f)-AI	520.1129	53	9.8135	0.0000	93.5368	abundant
Lodgepole Pine - White Spruce	SA(n)-PL-MXc-ms(m)	521.7758	32	16.3055	0.0002	61.5154	abundant
Aspen	LF(s)-AWc-ms(m)	534.2017	75	7.1227	0.0002	47.1283	abundant
Lodgepole Pine	M(n)-PLc-ms(m)	537.3228	42	12.7934	0.0000	170.4721	abundant
Pine (Undifferentiated)	LF(f)-PLc-ys(m)	540.8193	26	20.8007	0.0663	190.3617	abundant
Lodgepole Pine - Aspen	UF(n)-PL-AWc-ms(m)	542.5597	31	17.5019	0.0289	81.4820	abundant
Aspen	M(s)-AWc-ms(m)	560.5911	59	9.5015	0.0000	53.0083	abundant
White Spruce - Lodgepole Pine	UF(s)-SW-MXc-ms(m)	569.6151	48	11.8670	0.0000	114.2291	abundant
Pine (Undifferentiated) - White Spruce	UF(f)-PL-MXc-ms(m)	614.0456	44	13.9556	0.1772	131.6289	abundant
White Spruce - Lodgepole Pine	UF(f)-SW-MXc-ms(m)	664.4497	76	8.7428	0.0000	219.3720	abundant
Mesic Graminoid	LF(f)-GR(m)	694.9409	109	6.3756	0.0000	111.4993	abundant
Forb Meadow	LF(f)-FM(w)	810.0934	52	15.5787	0.0000	190.9839	abundant
Pine (Undifferentiated) - White Spruce	M(f)-PL-MXc-ms(m)	820.1552	37	22.1664	0.0000	120.7793	abundant
Lodgepole Pine	LF(f)-PLc-ms(m)	821.9284	167	4.9217	0.0000	46.1892	abundant
Lodgepole Pine	SA(n)-PLc-ms(m)	852.5482	43	19.8267	0.0000	205.9418	abundant
Pine (Undifferentiated)	UF(n)-PLc-ms(m)	856.1124	47	18.2152	0.0059	141.4605	abundant
Graminoid Clearcut	UF(n)-CC1-GR(m)	865.7309	90	9.6192	0.0001	31.8589	abundant
Pine (Undifferentiated)	LF(n)-PLc-ms(m)	963.6335	74	13.0221	0.0001	134.1820	abundant
Lodgepole Pine - Aspen	LF(f)-PL-AWc-ms(m)	982.8028	124	7.9258	0.0000	129.8735	abundant
Lodgepole Pine - Aspen	UF(s)-PL-AWc-ms(m)	1,009.3423	40	25.2336	0.0328	339.6557	abundant
Aspen	LF(f)-AWc-og(m)	1,013.4557	56	18.0974	0.0000	188.4709	abundant

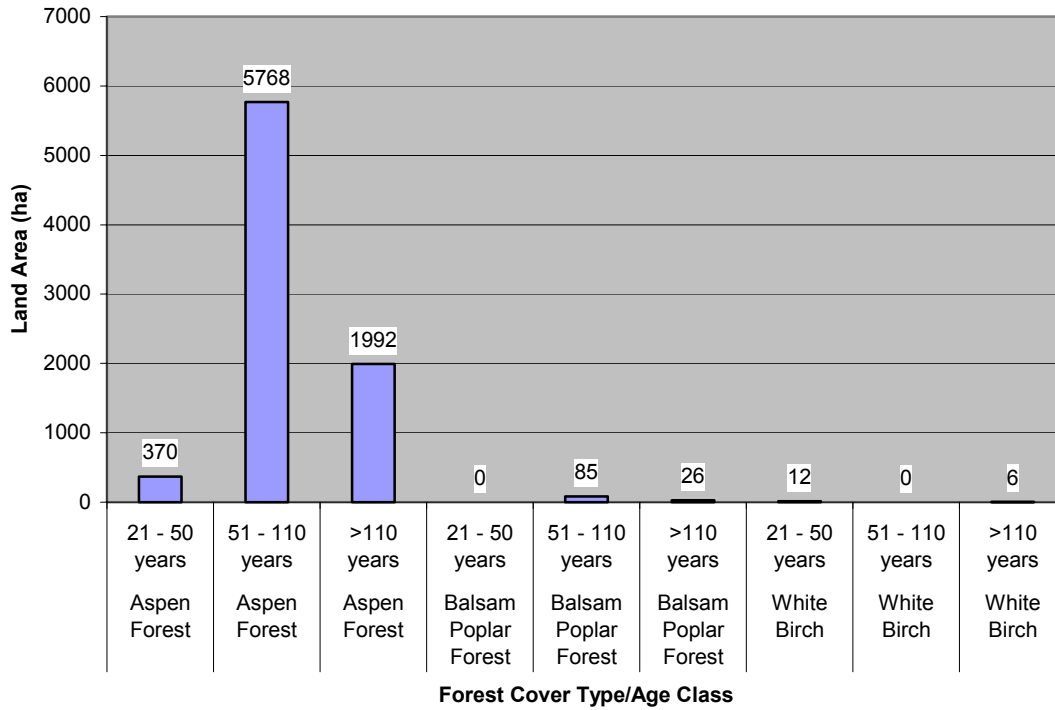
Appendix 2.4 - North FMA Wildlife Habitat Units

Pine (Undifferentiated) - Aspen	LF(f)-PL-AWc-ms(m)	1,023.9004	78	13.1269	0.0000	76.4733	abundant
White Spruce	UF(n)-SWc-ms(m)	1,058.8683	57	18.5766	0.0000	251.2414	abundant
Graminoid Clearcut	UF(s)-CC1-GR(m)	1,106.7299	83	13.3341	0.3492	37.6345	abundant
Pine (Undifferentiated)	M(n)-PLc-ms(m)	1,111.0266	68	16.3386	0.0000	128.1439	abundant
Pine (Undifferentiated)	UF(s)-PLc-ms(m)	1,154.3399	110	10.4940	0.0000	74.5757	abundant
White Spruce	LF(f)-SWc-ms(m)	1,173.4507	140	8.3818	0.0000	90.1868	abundant
Pine (Undifferentiated)	M(f)-PLc-ms(m)	1,200.0769	57	21.0540	0.0000	158.2995	abundant
Pine (Undifferentiated)	LF(s)-PLc-ms(m)	1,314.5837	86	15.2859	0.0000	134.0816	abundant
White Spruce - Pine (Undifferentiated)	LF(f)-SW-MXc-ms(m)	1,329.7303	112	11.8726	0.0000	139.7678	abundant
White Spruce - Lodgepole Pine	UF(n)-SW-MXc-ms(m)	1,435.1667	80	17.9396	0.0000	196.0720	abundant
Low Shrubland	LF(f)-SCI(w)	1,448.7958	141	10.2751	0.0000	185.4056	abundant
Pine (Undifferentiated)	UF(f)-PLc-ms(m)	1,457.2501	124	11.7520	0.0001	103.0323	abundant
Wet Graminoid	UF(f)-GR(w)	1,478.4910	144	10.2673	0.0217	136.5526	abundant
Perennial Cropland	LF(f)-CP	1,525.7176	123	12.4042	0.0000	176.5532	abundant
Aspen - White Spruce	LF(f)-AW-SWc-ms(m)	1,536.1988	104	14.7711	0.0000	255.7350	abundant
Aspen	LF(f)-AWc-ms(m)	1,640.1390	192	8.5424	0.0000	148.3555	abundant
White Spruce - Aspen	LF(f)-SW-AWc-ms(m)	1,733.5158	159	10.9026	0.0000	129.2826	abundant
Low Shrubland	UF(f)-SCI(m)	1,788.8023	155	11.5407	0.0000	156.5807	abundant
Lodgepole Pine	SA(f)-PLc-ms(m)	1,793.8670	74	24.2414	0.0000	556.9187	abundant
Lodgepole Pine - White Spruce	UF(f)-PL-MXc-ms(m)	1,875.8375	208	9.0184	0.0000	169.2318	abundant
Lodgepole Pine	M(f)-PLc-ms(m)	2,151.5805	97	22.1812	0.0407	144.0316	abundant
Low Shrubland	M(f)-SCI(m)	2,326.1134	249	9.3418	0.0000	388.1194	abundant
Lodgepole Pine - White Spruce	UF(s)-PL-MXc-ms(m)	2,389.2854	132	18.1006	0.0000	147.3416	abundant
Graminoid Clearcut	UF(f)-CC1-GR(m)	2,396.8180	193	12.4187	0.0000	159.8580	abundant
Low Shrubland	LF(f)-SCI(m)	2,404.9521	159	15.1255	0.0000	741.7137	abundant
Pine (Undifferentiated) - White Spruce	LF(f)-PL-MXc-ms(m)	2,877.5358	286	10.0613	0.0000	184.0221	abundant
Low Shrubland	UF(f)-SCI(w)	3,197.1398	199	16.0660	0.0000	188.8022	abundant
Lodgepole Pine - White Spruce	UF(n)-PL-MXc-ms(m)	3,948.7317	235	16.8031	0.0000	177.0973	abundant
Pine (Undifferentiated)	LF(f)-PLc-ms(m)	5,072.3718	579	8.7606	0.0000	453.5366	abundant
Graminoid Clearcut	LF(f)-CC1-GR(m)	5,912.9336	406	14.5639	0.0000	190.3432	abundant
Lodgepole Pine	UF(f)-PLc-ms(m)	11,204.0620	882	12.7030	0.0000	474.7334	abundant
Lodgepole Pine	UF(n)-PLc-ms(m)	11,457.3548	529	21.6585	0.0000	870.5856	abundant
Lodgepole Pine	UF(s)-PLc-ms(m)	12,520.3458	412	30.3892	0.0053	592.7327	abundant

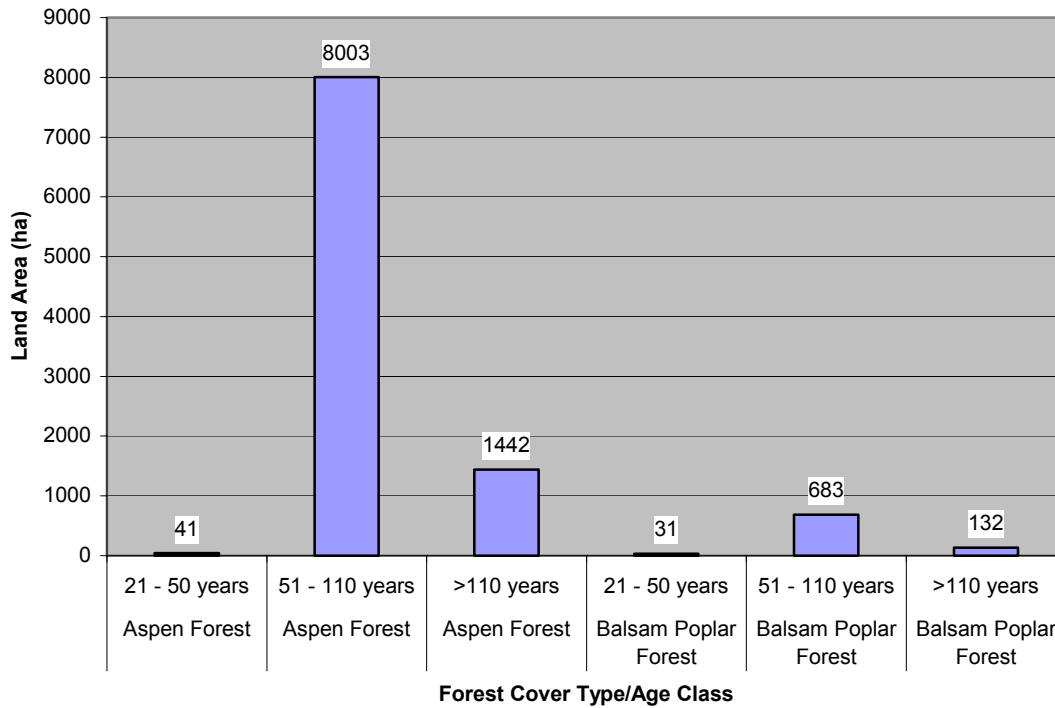
**APPENDIX 2.5**

**LAND AREAS OF FOREST COVER TYPES BY AGE CLASS  
IN THE NORTH AND SOUTH PORTIONS OF SPRAY LAKE FMA**

**Area of Deciduous Forest Cover by Age-Class - North FMA**

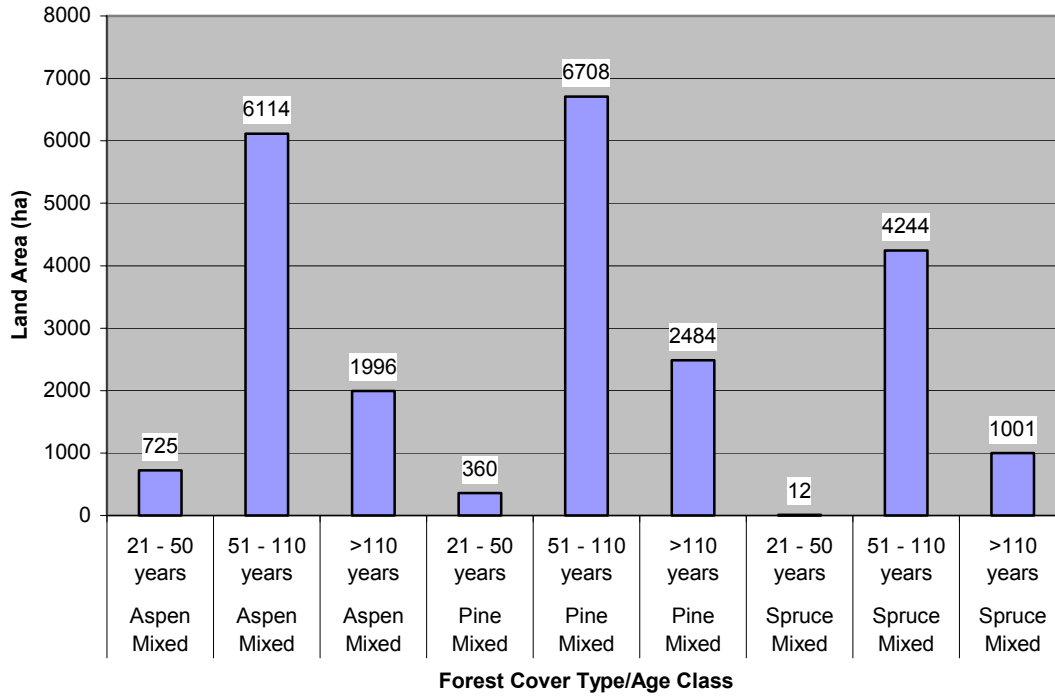


**Area of Deciduous Forest Cover by Age-Class - South FMA**

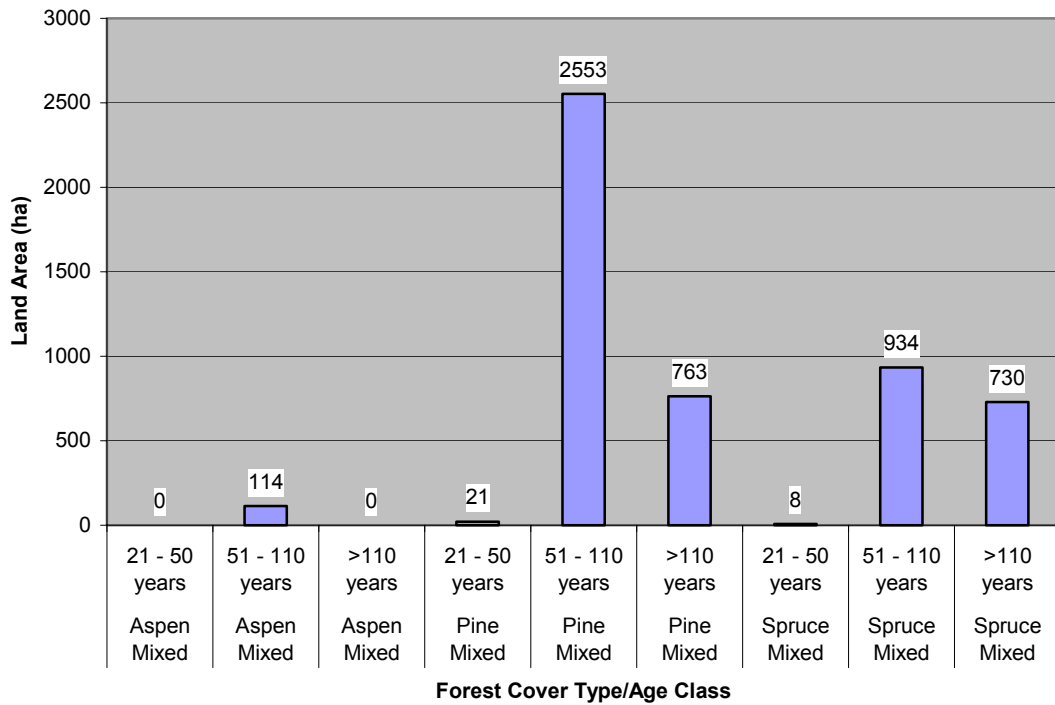




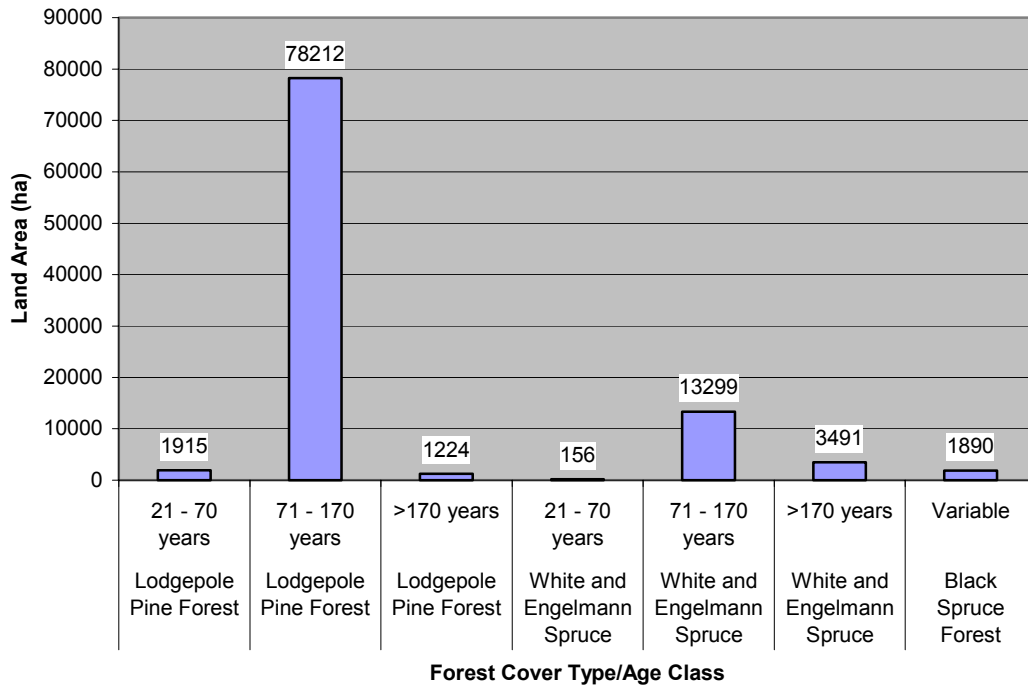
**Area of Mixedwood Forest Cover by Age Class - North FMA**



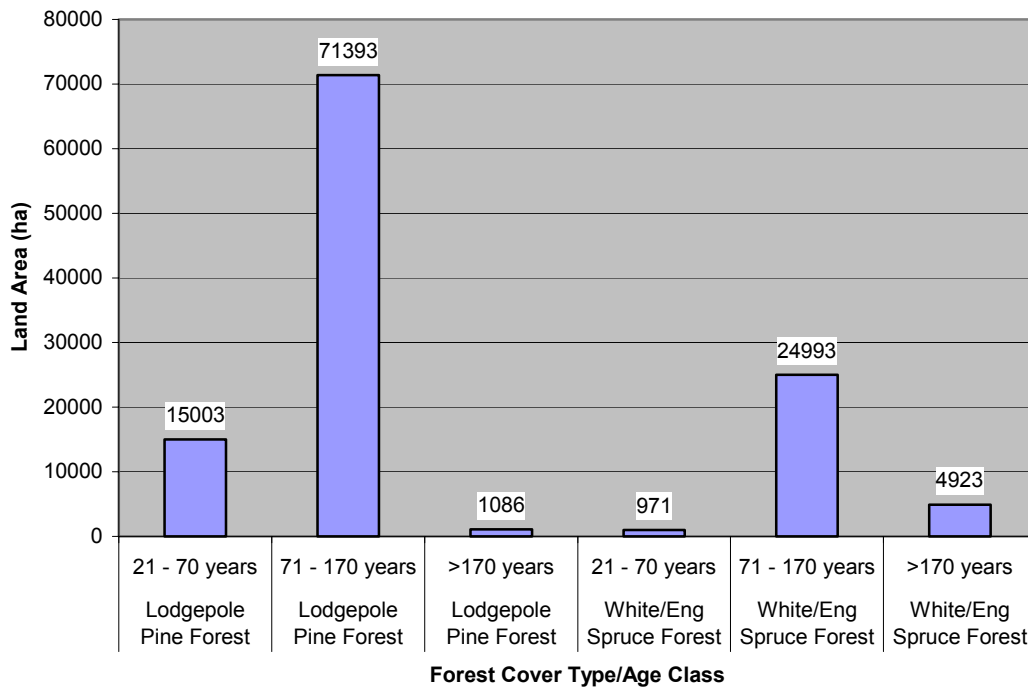
**Area of Mixedwood Forest Cover by Age Class - South FMA**



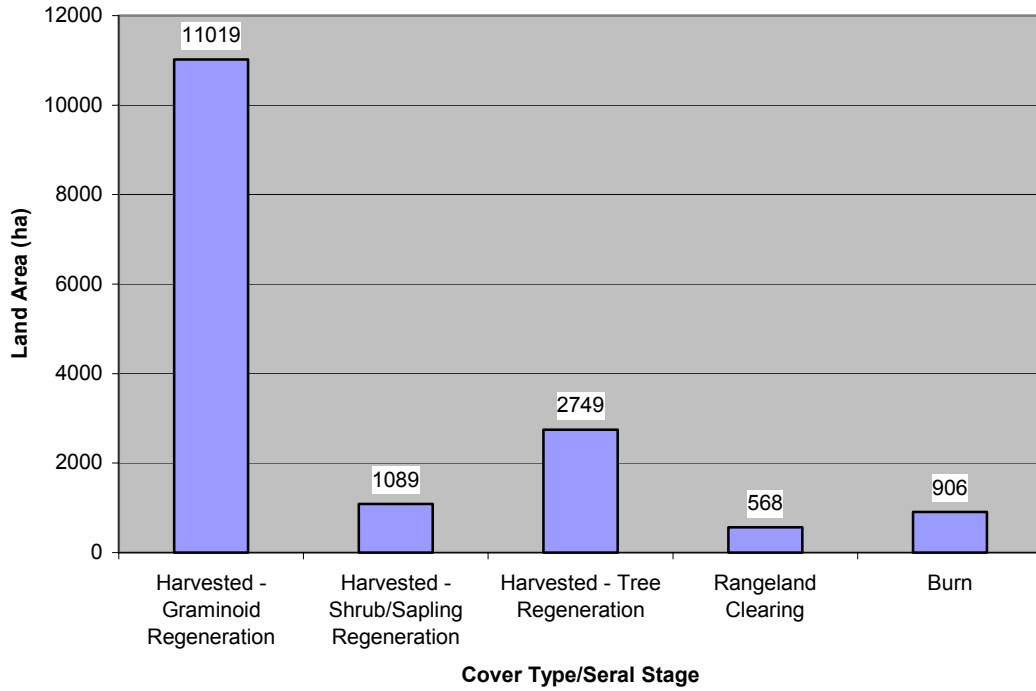
**Area of Coniferous Forest Cover by Age Class - North FMA**



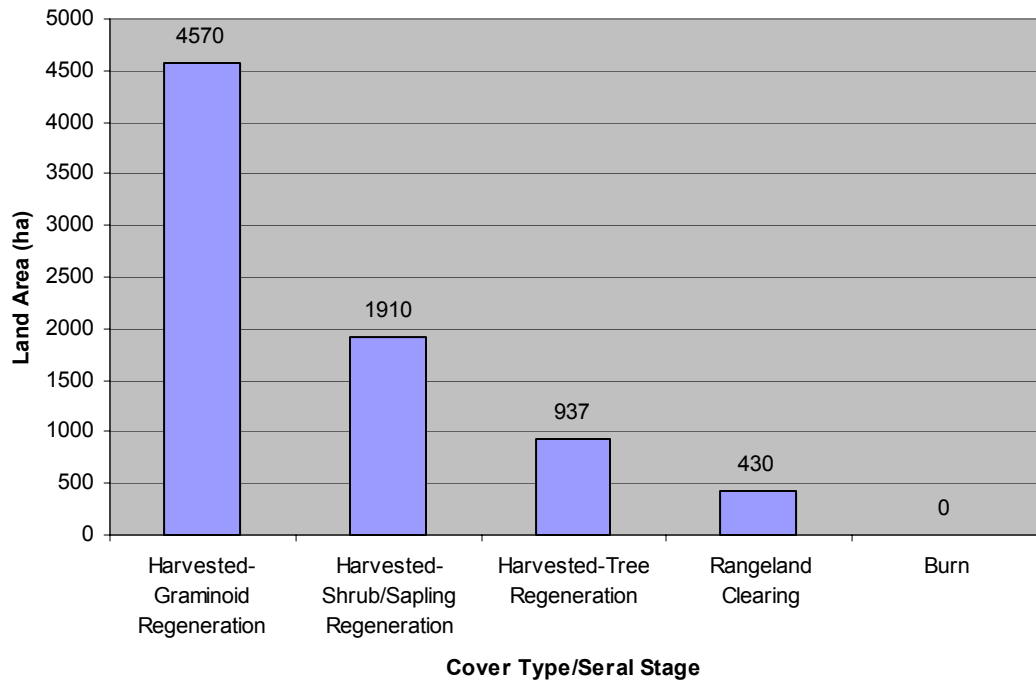
**Area of Lodgepole Pine and Upland Spruce Cover by Age Class - South FMA**



Area of Harvested, Cleared and Burn Cover - North FMA



Area of Harvested, Cleared, Burn Cover - North FMA



**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Anastrophyllum michauxii</i>	S1	McLean Creek	Moist shaded humus.	0	0	663900	5641000
<i>Riccardia chamedryfolia</i>	S?	SW of Elbow Ranger Station	Rotton log, Picea glauca woods. With Lepidozia reptans, Lophozia porphyroluca, Lophocolea heteophylla, Lophozia ventricosa.	0	0	660950	5638600
<i>Amblyodon dealbatus</i>	S2	Fisher Creek	P. tremuloides-P.glauca upland area. D. crassicosatus dom. aquatic, with calcareous rich fen mat incld R. pseudopunctatum M., flotoeriana A. palustre D. revolvens pH=8.2 cond=350uS	1480	1480	669100	5632000
<i>Aulacomnium androgynum</i>	S2	Fisher Creek	with Populus tremuloides-Picea glauca upland areas. D. crassicosatis dominant aquatic, with calcareous rich fen mat surrounding lake; mesic mature forest with many rotting logs	1480	1480	669100	5632000
<i>Brachythecium nelsonii</i>	S2	Elbow Ranger Station	on Sphagnum hummock near water line in carr area of wetland community; 4500 ft.	1372	1405	661800	5640900
<i>Brachythecium nelsonii</i>	S2	McLean Creek	side wet hummock, under Betula glandulosa, with grasses, Artemesia, Achillea, Arctostaphylos uva-ursa and Aster	1433	1433	663300	5639100
<i>Brachythecium plumosum</i>	S2	Rocky Mountains	on calcareous and non-calcareous rock cliffs and boulders beside stream in Pinus contorta-Picea engelmannii-Abies lasiocarpa forest	1800	1800	673400	5563000
<i>Brachythecium plumosum</i>	S2	Dry Creek	Picea/(Pinus)/(Abies)-Vaccinium scoparium; soil Brunisol; well drained	2070	2070	674925	5563500
<i>Brachythecium plumosum</i>	S2	Plateau Mountain	Larix/(Picea)/(Abies)-Vaccinium scoparium; soil Brunisol; well drained	2370	2370	673700	5565275
<i>Bryum algovicum</i>	S2	McLean Creek	shaded dwarf willow and birch, hummocky area; wet bank of spring	1448	1448	663100	5637150
<i>Bryum algovicum</i>	S2	Elbow River	near spring in exposed outcrop of Blairmore Foundation (sandstone), southern exposure, White spruce type	1433	1433	659475	5636950
<i>Bryum algovicum</i>	S2	Highwood River Road	spruce-aspen woods; wet soil on limestone rock	1695	1695	671600	5586325
<i>Bryum algovicum</i>	S2	McLean Creek	at base of shrub, in aspen stand on slope; growing on woody soil	1433	1433	663900	5641000
<i>Bryum turbinatum</i>	SU	Elbow Ranger Station		1400	1460	661800	5640900
<i>Campyllum polygamum</i>	S3	Elbow Ranger Station	in wetland community; on humus at base of mature aspen; 4500 ft.	1372	1405	661800	5640900
<i>Campyllum polygamum</i>	S3	McLean Creek	growing with Abietinella abietinella in shale region on W side of creek, shaded by white spruce; on dead wood	1433	1433	663300	5639100
<i>Campyllum polygamum</i>	S3	Elbow River	along N edge of river, ravine type habitat, localized bedrock exposures (Blairmore Formation: SS-shale), White Spruce river site; dry, sandy soil; 4700 ft.	1430	1430	659475	5636950
<i>Cirriphyllum cirrosum</i>	S2	Kananaskis Area	on soil and rock of calcareous escarpment. Pseudotsuga-Abies lasiocarpa scattered on ledges. T. abietinum-Hylocomium-T. tortuosa-O. jamesianum-Barbula abundant	1570	1760	637250	5653300
<i>Cirriphyllum cirrosum</i>	S2	Moose Mountain	springy place, 60 degree east-facing talus slope; 7890 ft.	2315	2315	652500	5645250
<i>Cirriphyllum cirrosum</i>	S2	Sibbald Flat	steep, shaded, seeping, north-facing limestone outcrop	1478	1478	650100	5655550
<i>Cirriphyllum cirrosum</i>	S2	Canyon Creek	beside rivulet; on wet rocks	1735	1735	645650	5641700
<i>Cynodontium tenellum</i>	S2S3	McLean Creek	open area in poplar-willow stand; on dry exposed limestone rock	1448	1448	663100	5637150

**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Desmatodon leucostoma</i>	S2	Cat Creek	steep north-facing limestone exposure; soil; 5300 ft.	1830	1830	663375	5589350
<i>Dichelyma falcatum</i>	S1	McLean Creek	spring in shaded area of N-facing side of hill, partially covered by alder & willows; 4950 ft.	1460	1500	663100	5637150
<i>Dicranella crispa</i>	S2	Rocky Mountains	steep outcropping; on soil on rock	1935	1935	673400	5563000
<i>Dicranella subulata</i>	S2S3	Cat Creek	thin soil on slaty rock; 5300 ft.	1830	1830	663375	5589350
<i>Dicranella subulata</i>	S2S3	Elbow River	ravine type habitat, localized bedrock exp. (Blairmore Formation: SS-shale), White spruce river site type, periodic inundation; dry, sandy soil	1433	1433	659475	5636950
<i>Dicranum tauricum</i>	S1S2	Elbow Falls Ranger Station	south facing slope, average angle 40 degrees, some lodgepole pine; on soil on dead branch; 4600 ft.	1508	1508	660075	5639650
<i>Didymodon subandreaeoides</i>	S2	Kananaskis Area	on soil & rock of calcareous escarpment; Pseudotsuga-Abies lasiocarpa scattered on ledges. T. abietinum-Hylocomium-T. tortuosa-O. jamesianum-Barbula abundant	1570	1760	637250	5653300
<i>Didymodon fallax</i>	S2	McLean Creek	under Betula glandulosa, el.; on moist hummocks with grasses	1433	1433	663300	5639100
<i>Drepanocladus crassicosatus</i>	S2	Fisher Creek	mat surrounding northern-most of two small hidden lakes	1480	1480	669200	5631750
<i>Grimmia donniana</i>	S2	Threepoint Creek	sandstone talus, S-facing slope; crevices; 7000 ft.	1585	1675	661250	5624300
<i>Grimmia donniana</i>	S2	Wilkinson Creek	by creek; acidic boulder	1980	1980	671875	5562850
<i>Grimmia montana</i>	S2	Threepoint Creek	in steep sided canyon; crevices in boulder; 5300 ft.	1585	1675	661250	5624300
<i>Grimmia torquata</i>	S2	Wilkinson Creek	steep north-facing rock wall beside creek; limestone rock; 5700 ft.	1737	1737	671400	5569100
<i>Gymnostomum aeruginosum</i>	S2S3	Stony Creek	dry slope, Populus tremuloides-Pseudotsuga menziesii-Picea glauca forest along seasonal stream with small waterfalls.	1525	1525	641900	5656500
<i>Gymnostomum aeruginosum</i>	S2S3	Elbow River	near spring in exposed sandstone outcrop, southern exposure; dry, calcareous soil; 4700 ft.	1430	1430	659475	5636950
<i>Homalothecium nevadense</i>	S1	Stony Creek	spruce-feathermoss; well drained	1465	1465	641400	5655875
<i>Homalothecium nevadense</i>	S1	Wilkinson Creek	steep N-facing rock wall beside creek; humus on rock face; 5700 ft.	1737	1737	671400	5569100
<i>Homalothecium nevadense</i>	S1	Cat Creek	steep N-facing limestone exposure; humus; 5300 ft.	1830	1830	663375	5589350
<i>Homalothecium nevadense</i>	S1	Rocky Mountains	steep outcropping; soil on rock	1935	1935	673400	5563000
<i>Homalothecium nevadense</i>	S1	Stony Creek	limestone outcrop, pine-spruce woods; cracks.	0	0	641900	5656500
<i>Hygroamblystegium tenax</i>	S2	McLean Creek	sandbar in creek, partially submerged	1426	1426	663300	5639100
<i>Hygrohypnum bestii</i>	S2S3	Baril Creek	in small secondary channel of creek; attached to submerged rocks; 5900 ft.	1800	1800	661550	5578300
<i>Orthotrichum affine</i>	SU	McLean Creek	NE side in white spruce stand; on old spruce; 4700 ft.	1433	1433	663900	5641000
<i>Philonotis marchica</i>	S1	Fisher Creek		1480	1480	669100	5632000
<i>Scouleria aquatica</i>	S2	Wilkinson Creek	north-facing outcrop; 6100 ft.	1859	1859	671850	5564000
<i>Scouleria aquatica</i>	S2	McLean Creek	extracted from Tomenthypnum nitens, in willow fen, pH 5.9; 4800 ft.	1460	1460	664475	5637300

**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Splachnum sphaericum</i>	S2	Fisher Creek	Foothills of E slopes of Rcky Mtns with Poputrem-Piceglau upland areas. Drepcras dominant aquatic, withcalcareous rich fen mat surrounding lake,mesic,mature forest with many rotting logs	1490	1495	669100	5632000
<i>Splachnum vasculosum</i>	S2	Raspberry Ridge Lookout Road	edge of spruce-pine-fir woods; cow dung	1932	1932	669150	5573550
<i>Tayloria acuminata</i>	SU	Raspberry Ridge	soil in crevice, E-facing limestone outcrop	2320	2320	668250	5574000
<i>Limprichtia cossonii</i>	SU	Quirk Creek	wet meadow surrounded by white spuce	1707	1707	653700	5633400
<i>Limprichtia cossonii</i>	SU	Little Elbow River	depression between hummocks, bog birch carr margin of rich fen	1676	1676	648650	5628400
<i>Limprichtia cossonii</i>	SU	Baril Creek	boggy area in white spruce woods	1798	1798	661550	5578300
<i>Coscinodon calyptratus</i>	S2	Stony Creek	dry, south facing Populus tremuloides-Pseudotsuga menziesii-Picea glauca forest along seasonal stream with small waterfalls	1525	1525	641900	5656500
<i>Coscinodon calyptratus</i>	S2	Cat Creek	exposed conglomerate boulder, 40 deg. SW-facing grassy slope; crevices; 5250 ft.	1600	1600	662700	5586575
<i>Coscinodon calyptratus</i>	S2	Highwood River	sandstone outcrop	1524	1524	667500	5583600
<i>Coscinodon calyptratus</i>	S2	Macabee Creek	sandstone outcrop, S-facing ridge; sandstone rock	1402	1402	678000	5613000
<i>Coscinodon calyptratus</i>	S2	Sibbald Creek	conglomerate outcrops, steep slope; on conglomerate	1463	1463	647325	5656750
<i>Jaffuelobryum raii</i>	S1	Elbow Falls	under picnis table; rock	1490	1490	656900	5637100
<i>Chaenotheca chrysocephala</i>	S2	Sibbald Creek	wet Picea glauca woods, on base of P. glauca.	1477	1477	647325	5656750
<i>Ramalina intermedia</i>	S1	Jumping Pound Creek	sandstone outcrop, mature Picea glauca stand	1430	1430	654450	5655750
<i>Leptogium hirsutum</i>	S1?	Chiniki Lake	conglomerate outcrop, on conglomerate	1538	1538	643600	5657250
<i>Bacidia hegetschweileri</i>	S1	Highwood River	Populus balsamifera - Picea glauca woods. Populus x tricarpa	1430	1430	674875	5585825
<i>Bryonora castanea</i>	S1	Ford Creek	Pinus contorta woods, W-facing slope; conglomerate outcrop, on moss	1710	1710	650050	5632400
<i>Buellia turgescens</i>	S1	Jumping Pound Road	white spruce-lodgepole pine/feathermoss; on white spruce lignum; Aspect: 306 deg., Slope: 7 deg.	1660	1660	643300	5647625
<i>Calicium trabinellum</i>	S2	Sibbald Creek	wet Picea glauca woods, on lignum of P. glauca stump.	1460	1460	647325	5656750
<i>Calicium trabinellum</i>	S2	Raspberry Ridge	wet Picea glauca woods, on old, decorticated stump at edge of a bog.	1770	1770	670100	5574800
<i>Chaenotheca stemonea</i>	S1	Sibbald Creek	wet Picea glauca woods, on lignum of Picea glauca stump.	1477	1477	647325	5656750
<i>Chaenotheca trichialis</i>	S2	Sibbald Creek	wet Picea glauca woods, on lignum of P. glauca stump.	1477	1477	647325	5656750
<i>Chaenotheca xyloxena</i>	S1	Pasque Mountain	on alpine heath; on old decorticated stump of Picea engelmannii.	2450	2450	671175	5559750
<i>Cladonia humilis</i>	S1	Little Elbow River	hummocks, bog birch-willow carr	1676	1676	648650	5628400
<i>Cyphelium inquinans</i>	S2	Sibbald Flats	In Pinus contorta-Picea glauca woods.; on Pinus contorta	1490	1490	650750	5657300
<i>Endocarpon pusillum</i>	S2	Mount Head	steep slope with limestone outcrops; on crevice in limestone	1569	1569	670375	5585050
<i>Lecidella anomaloides</i>	S1	Highwood River	exposed summit of mountain, rock	1920	1920	665900	5581000
<i>Lepraria incana</i>	S2	Stony Creek	exposed summit of mountain, rock	1465	1465	641400	5655875

**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Leptogium furfuraceum</i>	S2	Chiniki Lake	conglomerate outcrop, on conglomerate	1538	1538	643600	5657250
<i>Lopadium pezizoideum</i>	S1	Cat Creek	on mosses, steep limestone exposure.	1615	1615	663375	5589350
<i>Melanelia subelegantula</i>	S2	Stony Creek	white spruce-Douglas fir-aspens/twinflower/feathermoss; on white spruce; Aspect: 346 deg.; Slope: 8 degrees; Site D001	1440	1440	641400	5655875
<i>Micarea assimolata</i>	S2	Plateau Mountain	subalpine larch/grouseberry; on soil; Aspect: 174 deg., Slope: 2 degrees; Site A022	2020	2020	673700	5565275
<i>Mycocalicium subtile</i>	S2	Sibbald Creek	wet Picea glauca woods, on lignum of Picea glauca stump.	1477	1477	647325	5656750
<i>Psora nipponica</i>	S2	Ford Creek	Pinus contorta woods, on conglomerate outcrops.	1705	1705	650050	5632400
<i>Rhizocarpon concentricum</i>	S1	Jumping Pound Creek	Sandstone outcrop, mature Picea glauca stand, NE facing slope.	1385	1385	654450	5655750
<i>Umbilicaria americana</i>	S2	Cat Creek	face of fine grained sandstone cliff	1615	1615	663525	5586550
<i>Umbilicaria americana</i>	S2	Cat Creek	on fine-grained sandstone outcrop, in shade of Pseudotsuga menziesii, steep south-facing slope.	1600	1600	662700	5586575
<i>Verrucaria hydrela</i>	S1	Ford Creek	on rocks in running water of stream	1680	1680	650500	5631675
<i>Xylographa parallela</i>	S2	Raspberry Ridge		1770	1770	670100	5574800
<i>Lecanora saligna</i>	S1		open Pinus flexilis woods, on Pinus flexilis lignum.	1800	1800	671000	5586500
<i>Ephebe lanata</i>	S1	Ford Creek	Pinus contorta woods, on conglomerate outcrops on mosses	1723	1723	650050	5632400
<i>Phaeophyscia nigricans</i>	S2	Cat Creek	on conglomerate boulder in E side tributary	1631	1631	663375	5589350
<i>Phaeophyscia sciastra</i>	S2	Paddy's Flat Recreational Area	river flat area with forest of Picea glauca, Pinus contorta, Populus tremuloides, P. balsamifera, Betula papyrifera/Salix bebbiana, Shepherdia canadensis, sandstone outcrops in area	1377	1377	661300	5639050
<i>Bryoria simplicior</i>	S2S3	Fir Creek	S-facing slope with Populus tremuloides; Pseudotsuga menziesii and Pinus flexilis on lignum of prostrate log.	1520	1538	673125	5585600
<i>Bryoria trichodes</i>	SU	Cat Creek	on Picea glauca twigs	1600	1631	662700	5586575
<i>Cladonia bacilliformis</i>	S2S3	Baril Creek	rotten log; Picea glauca wood	1815	1815	661550	5578300
<i>Cladonia bacilliformis</i>	S2S3	Stony Creek	white spruce-Douglas Fir-aspens/twinflower/feathermoss; on rotting wood	1440	1440	641400	5655875
<i>Baeomyces rufus</i>	S2	Jumping Pound Creek	sandstone outcrop, mature Picea glauca stands	1430	1430	654450	5655750
<i>Psora tuckermanii</i>	S2	Brag Creek	steep south-facing sandstone outcrop.	1430	1430	660250	5637400
<i>Anaptychia setifera</i>	S2	Stony Creek	white spruce-Douglas fir-aspens/twinflower/feathermoss; on Picea glauca; Aspect: 346 deg, Slope: 8 deg.	1440	1440	641400	5655875
<i>Antennaria corymbosa</i>	S1	Barrier Lake	In soil pocket on bedrock	2190	2190	636975	5652750
<i>Arnica longifolia</i>	S2	Kananaskis Country	between rocks & boulders above bank of creek	1980	2130	660750	5593450

**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Erigeron radicans</i>	S2	Moose Dome Creek	fine-textured shattered limestone exposures; level or shallow slopes; with <i>Dryas octopetala</i> community with <i>Carex rupestris</i> and/or <i>Kobresia myosuroides</i> ; exposed rock varied between 40-75% of ground surface	1920	2225	653975	5643375
<i>Arabis lemmonii</i>	S2	Cataract Creek	Open alpine slope.	2195	2195	668500	5573700
<i>Draba porsildii</i>	S2	Moose Mountain	talus, saddle.	2310	2330	652500	5645250
<i>Lesquerella arctica</i> var <i>purshii</i>	S2	Canyon Creek	Gravel outwash flat of Canyon Creek	1737	1737	645650	5641700
<i>Silene involucrata</i>	S1S2	Moose Mountain	pine-spruce forest	1800	1800	654550	5644500
<i>Papaver radicum</i> ssp <i>kluanense</i>	S2	Moose Mountain	Talus	2315	2315	652500	5645250
<i>Ranunculus glaberrimus</i>	S2	Cataract Creek	open mountain meadow	2286	2286	668350	5574250
<i>Ranunculus glaberrimus</i>	S2	McLean Creek	in open aspen-grassland in McLean Creek OHV area	1447	1447	661592	5637834
<i>Potentilla hookeriana</i>	S2	Elbow Falls	rock crevices by the falls	1463	1463	656900	5637100
<i>Castilleja cusickii</i>	S2S3	Moose Dome Creek	understory of partially closed canopy of pine-spruce-fir on a flattened calcareous ridge top and upper slopes; <i>Picea engelmannii</i> , <i>Abies lasiocarpa</i> , <i>Pinus contorta</i> , <i>Juniperus communis</i> , <i>Shepherdia canadensis</i> , <i>Arctostaphylos uva-ursi</i> , <i>Elymus innotatus</i> , <i>Pleurozium schreberii</i>	1980	1980	656275	5642600
<i>Castilleja lutescens</i>	S2S3	Green Mountain	narrow band of old-growth spruce on stream alluvium; spp.: spruce, subalpine fir, <i>Ribes lacustre</i> , <i>Lonicera involucrata</i> , <i>Equisetum arvense</i> , mosses, 65% cover	1585	1585	667800	5609500
<i>Penstemon fruticosus</i> var <i>scouleri</i>	S2	Wilkinson Creek	road cut	1830	1830	671850	5564000
<i>Carex adusta</i>	S1	Plateau Mountain	alpine meadow, above timberline	2270	2270	674900	5565400
<i>Carex petricosa</i>	S2S3	Moose Mountain		2042	2042	651700	5645350
<i>Carex petricosa</i>	S2S3	Barrier Lake		2240	2248	636975	5652750
<i>Carex petricosa</i>	S2S3	Moose Dome Creek	rocky alpine ridge, 50% exposed gravels and rock in a <i>Dryas octopetala</i> community, open exposure; <i>Calamagrostis purpurascens</i> , <i>Antennaria alpina</i>	1980	2135	653975	5643375
<i>Carex tinctoria</i>	S1	Moose Dome Creek		1646	1646	655400	5642675
<i>Trichophorum pumilum</i>	S2	Lusk Creek	Hillside flush wet; calcareous soil.	1495	1495	640250	5653000
<i>Listera convallarioides</i>	S2	Sibbald Flat	boggy wood by beaver dam	1555	1555	648950	5656850
<i>Potamogeton praelongus</i>	S2	Bateman Creek	lower boreal cordilleran region; montane valley bottom; open water aquatics and offshore emergents of closed lake	1478	1478	649550	5657300
<i>Pellaea gastonyi</i>	S1	Kananaskis Forest Experimental Station	exposed SW-facing limestone cliff in crevices & ledges under scattered <i>Pseudotsuga menziesii</i> w/ few <i>Juniperus horizontalis</i> , <i>Potentilla fruticosa</i> .	1433	1433	637850	5654650
<i>Pellaea gastonyi</i>	S1	Mount Head	steep slope with limestone outcrops, on soil in crevices	1554	1554	669550	5585400



**APPENDIX 2.6a.**  
**Rare Plant Occurrences in the SLS South FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Botrychium minganense</i>	S2S3	Moose Dome Creek	mid-upper slopes in semi treed & open grassy areas; with <i>Juniperus communis</i> , <i>Arctostaphylos uva-ursi</i> , <i>Calamagrostis purpurascens</i> , <i>Elymus innovatus</i> , <i>Danthonia intermedia</i> with <i>P. engelmanni</i> , <i>A. lasiocarpa</i> & <i>P. contorta</i>	1830	1860	656450	5643000

**APPENDIX 2.6b.**  
**Rare Plant Occurrences in the SLS North FMA from ANHIC**

Scientific Name	Rank	Survey Site	Site Description	Elevation (m)		UTM-East	UTM-North
				Min	Max		
<i>Campylium polygamum</i>	S3	Waiparous Creek	dense mature white spruce-feather moss woods, gentle N-facing slope; humus	1737	1737	625125	5694750
<i>Drepanocladus brevifolius</i>	S1	Waiparous Creek	upper surface of boulder in stream, wet, open	1430	1430	640400	5692000
<i>Orthotrichum affine</i>	SU	Waiparous Creek	open white spruce woods with <i>Arctostaphylos uva-ursi</i> , <i>Potentilla fruticosa</i> & <i>Juniperus communis</i> , level gravel flat.	1555	1555	633650	5695625
<i>Philonotis marchica</i>	S1	Waiparous Creek	inclined water-logged bog birch carr	1480	1480	641750	5689000
<i>Limprichtia cossonii</i>	SU	Waiparous Creek	spruce.	1480	1480	641750	5689000
<i>Limprichtia cossonii</i>	SU	Waiparous Creek	beside backwater of creek; wet soil	1372	1372	643750	5687850
<i>Cladonia ramulosa</i>	S1	Waiparous Creek	humus, <i>Picea glauca</i> woods beside bog birch carr	1490	1490	641750	5689000
<i>Leptogium tenuissimum</i>	S2	Waiparous Creek	well-rotted spruce log, nearly mature white spruce woods.	1492	1492	641750	5689000
<i>Primula egalikensis</i>	S2	Red Deer River	in small wet muskeg; open area in spruce trees is 20 m across; on the river flat.	1280	1280	636100	5723000
<i>Parnassia parviflora</i>	S2	Meadow Creek	On boggy patch.	1463	1463	638750	5693600

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Common Loon	<i>Gavia immer</i>	S	C		Not at Risk
Pied-billed Grebe	<i>Podilymbus podiceps</i>	S	U	Sensitive	
Horned Grebe	<i>Podiceps auritus</i>	S	S	Sensitive	
Red-necked Grebe	<i>Podiceps grisegena</i>	S	C		Not at Risk
Eared Grebe	<i>Podiceps nigricollis</i>	S	U		
Western Grebe	<i>Aechmophorus occidentalis</i>	M	S	Sensitive	
American White Pelican	<i>Pelecanus erythrorhynchos</i>	M	S	Sensitive	Not at Risk
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	M	S		Not at Risk
American Bittern	<i>Botaurus lentigenosis</i>	S	S	Sensitive	
Great Blue Heron	<i>Ardea herodias</i>	S	U	Sensitive	
Osprey	<i>Pandion haliaetus</i>	S	U	Sensitive	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	S	S	Sensitive	Not at Risk
Northern Harrier	<i>Circus cyaneus</i>	S	U		Not at Risk
Sharp-shinned Hawk	<i>Accipiter striatus</i>	S	U		Not at Risk
Cooper's Hawk	<i>Accipiter cooperii</i>	S	U		Not at Risk
Northern Goshawk	<i>Accipiter gentilis</i>	R	U	Sensitive	Not at Risk
Broad-winged Hawk	<i>Buteo platypterus</i>	M	S	Sensitive	
Swainson's Hawk	<i>Buteo swainsoni</i>	S	S	Sensitive	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	S	C		Not at Risk
Rough-legged Hawk	<i>Buteo lagopus</i>	M	C		Not at Risk
Golden Eagle	<i>Aquila chrysaetos</i>	R	U	Sensitive	Not at Risk
American Kestrel	<i>Falco sparverius</i>	S	C		
Merlin	<i>Falco columbarius</i>	S	U		Not at Risk
Gyrfalcon	<i>Falco rusticolus</i>	W	S		Not at Risk
Peregrine Falcon	<i>Falco peregrinus</i>	M	S	At Risk Threatened	Threatened

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Prairie Falcon	<i>Falco mexicanus</i>	S	S	Sensitive	Not at Risk
Yellow Rail	<i>Coturnicops noveboracensis</i>	S	R		Special Concern
Virginia Rail	<i>Rallus limicola</i>	S	R		
Sora	<i>Porzana carolina</i>	S	C		
American Coot	<i>Fulica americana</i>	S	C		
Sandhill Crane	<i>Grus canadensis</i>	S	S	Sensitive	
Black-bellied Plover	<i>Pluvialis squatarola</i>	M	U		
American Golden-Plover	<i>Pluvialis dominica</i>	M	S		
Semipalmated Plover	<i>Charadrius semipalmatus</i>	M	U		
Killdeer	<i>Charadrius vociferus</i>	S	C		
American Avocet	<i>Recurvirostra americana</i>	S	R		
Greater Yellowlegs	<i>Tringa melanoleuca</i>	M	C		
Lesser Yellowlegs	<i>Tringa flavipes</i>	M	C		
Solitary Sandpiper	<i>Tringa solitaria</i>	S	U		
Willet	<i>Catoptrophorus semipalmatus</i>	S	R		
Spotted Sandpiper	<i>Actitis macularia</i>	S	C		
Upland Sandpiper	<i>Bartramia longicauda</i>	S	S	Sensitive	
Marbled Godwit	<i>Limosa fedoa</i>	S	R		
Ruddy Turnstone	<i>Arenaria interpres</i>	M	S		
Red Knot	<i>Calidris canutus</i>	M	S		
Sanderling	<i>Calidris alba</i>	M	C		
Semipalmated Sandpiper	<i>Calidris pusilla</i>	M	U		
Western Sandpiper	<i>Calidris mauri</i>	M	S		
Least Sandpiper	<i>Calidris minutilla</i>	M	C		
Baird's Sandpiper	<i>Calidris bairdii</i>	M	C		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Pectoral Sandpiper	<i>Calidris melanotos</i>	M	C		
Dunlin	<i>Calidris alpina</i>	M	S		
Stilt Sandpiper	<i>Calidris himantopus</i>	M	S		
Short-billed Dowitcher	<i>Limnodromus griseus</i>	M	S		
Long-billed Dowitcher	<i>Limnodramus scolopaceus</i>	M	C		
Wilson's Snipe	<i>Gallinago gallinago</i>	S	C		
Wilson's Phalarope	<i>Phalaropus tricolor</i>	S	U		
Red-necked Phalarope	<i>Phalaropus lobatus</i>	M	U		
Franklin's Gull	<i>Larus pipixcan</i>	M	C		
Bonaparte's Gull	<i>Larus philadelphia</i>	M	U		
Mew Gull	<i>Larus canus</i>	M	S		
Ring-billed Gull	<i>Larus delawarensis</i>	M	C		
California Gull	<i>Larus californicus</i>	M	C		
Herring Gull	<i>Larus argentatus</i>	M	U		
Glaucus Gull	<i>Larus hyperboreus</i>	M	S		
Caspian Tern	<i>Sterna caspia</i>	M	S	Sensitive	Not at Risk
Common Tern	<i>Sterna hirundo</i>	M	U		Not at Risk
Arctic Tern	<i>Sterna paradisaea</i>	M	S		
Forster's Tern	<i>Sterna forsteri</i>	M	U	Sensitive	Data Deficient
Black Tern	<i>Chlidonias niger</i>	S	U	Sensitive	Not at Risk
Rock Dove	<i>Columba livia</i>	R	U		
Mourning Dove	<i>Zenaida macroura</i>	S	U		
Great Horned Owl	<i>Bubo virginianus</i>	R	C		
Northern Hawk Owl	<i>Surnia ulula</i>	R	S		Not at Risk
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>	R	U	Sensitive	

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Barred Owl	<i>Strix varia</i>	R	U	Sensitive	
Great Gray Owl	<i>Strix nebulosa</i>	R	U	Sensitive	Not at Risk
Long-eared Owl	<i>Asio otus</i>	R	U		
Short-eared Owl	<i>Asio flammeus</i>	S	S	May Be At Risk	Special Concern
Boreal Owl	<i>Aegolius funereus</i>	R	U		Not at Risk
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	R	C		
Common Nighthawk	<i>Chordeiles minor</i>	S	U	Sensitive	
Black Swift	<i>Cyseloides niger</i>	S	R		
Ruby-throated Hummingbird	<i>Archilochus clubris</i>	S	S		
Calliope Hummingbird	<i>Stellula calliope</i>	S	U		
Rufous Hummingbird	<i>Selasphorus rufus</i>	S	C		
Belted Kingfisher	<i>Ceryle alcyon</i>	S	C		
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	S	C		
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	S	C		
Downy Woodpecker	<i>Picoides pubescens</i>	R	C		
Hairy Woodpecker	<i>Picoides villosus</i>	R	C		
Three-toed Woodpecker	<i>Picoides tridactylus</i>	R	C		
Black-backed Woodpecker	<i>Picoides arcticus</i>	R	S	Sensitive	
Northern Flicker	<i>Colaptes auratus</i>	S	C		
Pileated Woodpecker	<i>Dryocopus pileatus</i>	R	U	Sensitive	
Olive-sided Flycatcher	<i>Contopus cooperi</i>	S	U		
Western Wood-Pewee	<i>Contopus sordidulus</i>	S	U		
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	S	S		
Alder Flycatcher	<i>Empidonax alnorum</i>	S	C		
Willow Flycatcher	<i>Empidonax traillii</i>	S	U		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Least Flycatcher	<i>Empidonax minimus</i>	S	C		
Hammond's Flycatcher	<i>Empidonax hammondii</i>	S	S		
Dusky Flycatcher	<i>Empidonax oberholseri</i>	S	U		
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	S	U		
Eastern Phoebe	<i>Sayornis phoebe</i>	S	U		
Say's Phoebe	<i>Sayornis saya</i>	S	S		
Eastern Kingbird	<i>Tyrannus tyrannus</i>	S	U		
Northern Shrike	<i>Lanius excubitor</i>	W	U		
Cassin's Vireo	<i>Vireo cassinii</i>	S	U		
Blue-headed Vireo	<i>Vireo solitarius</i>	S	U		
Warbling Vireo	<i>Vireo gilvus</i>	S	C		
Philadelphia Vireo	<i>Vireo philadelphicus</i>	M	S		
Red-eyed Vireo	<i>Vireo olivaceus</i>	S	U		
Gray Jay	<i>Perisoreus canadensis</i>	R	C		
Steller's Jay	<i>Cynocitta cristata</i>	R	S		
Blue Jay	<i>Cyanocitta cristata</i>	S	S		
Clark's Nutcracker	<i>Nucifraga columbiana</i>	R	U		
Black-billed Magpie	<i>Pica hudsonia</i>	R	C		
American Crow	<i>Corvus brachyrhynchos</i>	S	C		
Common Raven	<i>Corvus corax</i>	R	C		
Horned Lark	<i>Eremophila alpestris</i>	S	U		
Tree Swallow	<i>Tachycineta bicolor</i>	S	C		
Violet-green Swallow	<i>Tachycineta thalassina</i>	S	U		
Northern Rough-winged Swallow	<i>Stegidopteryx serripennis</i>	S	U		
Bank Swallow	<i>Riparia riparia</i>	S	C		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	S	C		
Barn Swallow	<i>Hirundo rustica</i>	S	C		
Black-capped Chickadee	<i>Poecile atricapillus</i>	R	C		
Mountain Chickadee	<i>Poecile gambeli</i>	R	C		
Boreal Chickadee	<i>Poecile hudsonicus</i>	R	C		
Red-breasted Nuthatch	<i>Sitta canadensis</i>	R	C		
White-breasted Nuthatch	<i>Sitta carolinensis</i>	R	S		
Brown Creeper	<i>Certhia americana</i>	R	S		
Rock Wren	<i>Salpinctes obsoletus</i>	S	S		
House Wren	<i>Troglodytes aedon</i>	S	C		
Winter Wren	<i>Troglodytes troglodytes</i>	S	U		
Marsh Wren	<i>Cistothorus palustris</i>	S	S		
American Dipper	<i>Cinclus mexicanus</i>	S	U		
Golden-crowned Kinglet	<i>Regulus satrapa</i>	R	C		
Ruby-crowned Kinglet	<i>Regulus calendula</i>	S	C		
Mountain Bluebird	<i>Sialia currocoides</i>	S	C		
Townsend's Solitaire	<i>Myadestes townsendi</i>	S	U		
Veery	<i>Catharus fuscescens</i>	S	S		
Gray-cheeked Thrush	<i>Catharus minimus</i>	M	S		
Swainson's Thrush	<i>Catharus ustulatus</i>	S	C		
Hermit Thrush	<i>Catharus guttatus</i>	S	C		
American Robin	<i>Turdus migratorius</i>	S	C		
Varied Thrush	<i>Ixoreus naevius</i>	S	U		
Gray Catbird	<i>Dumetella carolinensis</i>	S	S		
Brown Thrasher	<i>Toxostoma rufum</i>	S	S		



**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
European Starling	<i>Sturnus vulgaris</i>	R	U		
American Pipit	<i>Anthus rubescens</i>	S	U		
Sprague's Pipit	<i>Anthus spragueii</i>	S	S	Sensitive	Threatened
Bohemian Waxwing	<i>Bombycilla garrulus</i>	R	U		
Cedar Waxwing	<i>Bombycilla garrulus</i>	S	C		
Tennessee Warbler	<i>Vermivora peregrina</i>	S	C		
Orange-crowned Warbler	<i>Vermivora celata</i>	S	C		
Nashville Warbler	<i>Vermivora ruficapilla</i>	M	S		
Yellow Warbler	<i>Dendroica petechia</i>	S	C		
Magnolia Warbler	<i>Dendroica magnolia</i>	M	S		
Yellow-rumped Warbler	<i>Dendroica coronata</i>	S	C		
Cape May Warbler	<i>Dendroica carulescens</i>	S	R	Sensitive Special Concern	
Black-throated Green Warbler	<i>Dendroica virens</i>	S	S	Sensitive	
Bay-breasted Warbler	<i>Dendroica castanea</i>	S	R	Sensitive Special Concern	
Canada Warbler	<i>Wilsonia canadensis</i>	S	R	Sensitive	
Townsend's Warbler	<i>Dendroica townsendi</i>	S	U		
Palm Warbler	<i>Dendroica palmarum</i>	M	U		
Blackpoll Warbler	<i>Dendroica striata</i>	S	S		
Black-and-white Warbler	<i>Mniotilta varia</i>	M	S		
American Redstart	<i>Setophaga ruticilla</i>	S	S		
Ovenbird	<i>Seiurus aurocapillus</i>	S	S		
Northern Waterthrush	<i>Seiurus noveboracensis</i>	S	U		
Connecticut Warbler	<i>Oporornis agilis</i>	S	S		
Mourning Warbler	<i>Oporornis philadelphia</i>	M	S		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
MacGillivray's Warbler	<i>Oporornis tolmiei</i>	S	U		
Common Yellowthroat	<i>Geothlypis trichas</i>	S	C		
Wilson's Warbler	<i>Wilsonia pusilla</i>	S	C		
Western Tanager	<i>Piranga ludoviciana</i>	S	U	Sensitive	
Spotted Towhee	<i>Pipilo maculatus</i>	S	S		
American Tree Sparrow	<i>Spizella arborea</i>	W	S		
Chipping Sparrow	<i>Spizella passerina</i>	S	C		
Clay-colored Sparrow	<i>Spizella pallida</i>	S	C		
Brewer's Sparrow	<i>Spizella breweri</i>	S	S	Sensitive	
Vesper Sparrow	<i>Pooecetes gramineus</i>	S	U		
Savannah Sparrow	<i>Passerculus sandwichensis</i>	S	C		
Le Conte's Sparrow	<i>Ammodramus leconteii</i>	S	U		
Nelson's Sharp-tailed Sparrow	<i>Ammodramus nelsoni</i>	M	S		Not at Risk
Fox Sparrow	<i>Passerella iliaca</i>	S	C		
Song Sparrow	<i>Melospiza melodia</i>	S	C		
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	S	C		
Swamp Sparrow	<i>Melospiza georgiana</i>	M	S		
White-throated Sparrow	<i>Zonotrichia albicollis</i>	S	U		
Harris' Sparrow	<i>Zonotrichia querula</i>	M	U		
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	S	C		
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	S	S		
Dark-eyed Junco	<i>Junco hyemalis</i>	S	C		
Lapland Longspur	<i>Calcarius lapponicus</i>	M	U		
Snow Bunting	<i>Plectrophenax nivalis</i>	W	U		
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	S	S		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Lazuli Bunting	<i>Passerina cyanea</i>	S	U		
Bobolink	<i>Dolichonyx oryzivorus</i>	S	S	Sensitive	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	S	C		
Western Meadowlark	<i>Sturnella neglecta</i>	S	U		
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	S	U		
Rusty Blackbird	<i>Euphagus carolinus</i>	W	U		
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	S	C		
Common Grackle	<i>Quiscalus quiscula</i>	S	U		
Brown-headed Cowbird	<i>Molothrus ater</i>	S	C		
Baltimore Oriole	<i>Icterus galbula</i>	S	U		
Gray-crowned Rosy Finch	<i>Leucosticte tephrocotis</i>	S	S		
Pine Grosbeak	<i>Pinicola enucleator</i>	R	U		
Purple Finch	<i>Carpodacus purpureus</i>	S	S		
Cassin's Finch	<i>Carpodacus cassinii</i>	S	U		
Red Crossbill	<i>Loxia curvirostra</i>	R	U		
White-winged Crossbill	<i>Loxia leucoptera</i>	R	C		
Common Redpoll	<i>Carduelis flammea</i>	W	C		
Hoary Redpoll	<i>Carduelis hornemmani</i>	W	S		
Pine Siskin	<i>Carduelis pinus</i>	R	C		
American Goldfinch	<i>Carduelis tristis</i>	S	C		
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	R	U		
House Sparrow	<i>Passer domesticus</i>	R	U		
Masked Shrew	<i>Sorex cinereus</i>	R	C		
Dusky Shrew	<i>Sorex monticolus</i>	R	C		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Common Water Shrew	<i>Sorex palustris</i>	R	U		
Arctic Shrew	<i>Sorex arcticus</i>	R	U		
Pygmy Shrew	<i>Sorex hoyi</i>	R	U		
Little Brown Bat	<i>Myotis lucifugus</i>	R	C		
Northern Bat	<i>Myotis septentrionalis</i>	R	U	May Be At Risk	
Long-eared Bat	<i>Myotis evotis</i>	R	S		
Long-legged Bat	<i>Myotis volans</i>	R	S		
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	S	C		
Big Brown Bat	<i>Eptesicus fuscus</i>	R	U		
Hoary Bat	<i>Lasiurus cinereus</i>	S	U		
American Pika	<i>Ochotona princeps</i>	R	U		
Snowshoe Hare	<i>Lepus americanus</i>	R	C		
Least Chipmunk	<i>Tamias minimus</i>	R	C		
Yellow-pine Chipmunk	<i>Tamias amoenus</i>	R	S		
Hoary Marmot	<i>Marmota caligata</i>	R	U		
Richardson's Ground Squirrel	<i>Spermophilus richardsonii</i>	R	S		
Columbian Ground Squirrel	<i>Spermophilus columbianus</i>	R	C		
Thirteen-lined Ground Squirrel	<i>Spermophilus tridecemlineatus</i>	R	S		
Golden-mantled Ground Squirrel	<i>Spermophilus lateralis</i>	R	U		
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	R	C		
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	R	C		
Northern Pocket Gopher	<i>Thomomys talpoides</i>	R	C		
American Beaver	<i>Castor canadensis</i>	R	C		
Deer Mouse	<i>Peromyscus maniculatus</i>	R	C		
Bushy-tailed Woodrat	<i>Neotoma cinerea</i>	R	C		
Southern Red-backed Vole	<i>Clethrionomys gapperi</i>	R	C		

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Heather Vole	<i>Phenacomys intermedius</i>	R	C		
Meadow Vole	<i>Microtus pennsylvanicus</i>	R	C		
Long-tailed Vole	<i>Microtus longicaudus</i>	R	C		
Water Vole	<i>Microtus richardsoni</i>	R	U	Sensitive	
Muskrat	<i>Ondatra zibethicus</i>	R	C		
Northern Bog Lemming	<i>Synaptomys borealis</i>	R	C		
House Mouse	<i>Mus musculus</i>	R	S		
Western Jumping Mouse	<i>Zapus princeps</i>	R	C		
Common Porcupine	<i>Erethizon dorsatum</i>	R	C		
Coyote	<i>Canis latrans</i>	R	C		
Gray Wolf	<i>Canis lupus</i>	R	U		Not at Risk
Red Fox	<i>Vulpes vulpes</i>	R	C		
Black Bear	<i>Ursus americanus</i>	R	C		Not at Risk
Grizzly Bear	<i>Ursus arctos</i>	R	U	May Be At Risk	Special Concern
American Marten	<i>Martes americana</i>	R	C		
Short-tailed Weasel	<i>Mustela erminea</i>	R	C		
Least Weasel	<i>Mustela nivalis</i>	R	C		
Long-tailed Weasel	<i>Mustela frenata</i>	R	U	May Be At Risk	Not at Risk
American Mink	<i>Mustela vison</i>	R	C		
Wolverine	<i>Gulo gulo</i>	R	S	May Be At Risk	Special Concern
American Badger	<i>Taxidea taxus</i>	R	S	Sensitive	Not at Risk
Striped Skunk	<i>Mephitis mephitis</i>	R	S		
Cougar	<i>Felis concolor</i>	R	U	Sensitive	
Canada Lynx	<i>Lynx canadensis</i>	R	U	Sensitive	Not at Risk
Bobcat	<i>Lynx rufus</i>	R	S	Sensitive	

**APPENDIX 2.7.**  
**Vertebrates of the SLS FMA**

Common Name	Scientific Name	Status	Abundance	At Risk Designation	
				Alberta	COSEWIC
Elk	<i>Cervus elaphus</i>	R	C		
Mule Deer	<i>Odocoileus hemionus</i>	R	C		
White-tailed Deer	<i>Odocoileus virginianus</i>	R	C		
Moose	<i>Alces alces</i>	R	U		
Mountain Goat	<i>Oreamnus americanus</i>	R	S		
Bighorn Sheep	<i>Ovis canadensis</i>	R	U		
Long-toed Salamander	<i>Ambystoma macrodactylum</i>	R	C	Sensitive	
Tiger Salamander	<i>Ambystoma tigrinum</i>	R	S		
Western Toad	<i>Bufo boreas</i>	R	C	Sensitive	
Striped Chorus Frog	<i>Pseudacris triseriata</i>	R	C		
Columbia Spotted Frog	<i>Rana luteiventris</i>	R	U	Sensitive	Not at Risk
Wood Frog	<i>Rana sylvatica</i>	R	C		
Northern Leopard Frog	<i>Rana pipiens</i>	R	R	At Risk Threatened	Special Concern
Wandering Garter Snake	<i>Thamnophis elegans</i>	R	S	Sensitive	
Red-sided Garter Snake	<i>Thamnophis sirtalis</i>	R	S	Sensitive	

**Appendix 2.8. Northern Pygmy-Owl Habitat Suitability Ratings for the SLS North FMA**

Natural Subregion	Rating
Lower Foothills	H
Montane	H
Sub-Alpine	H
Upper Foothills	H
<b>Aspect</b>	
Flat	H
NE	H
SW	H
<b>Stand Age</b>	
Deciduous > 81	H
Deciduous 51-80	M
Coniferous >121	H
Coniferous 71-120	M
<b>Moisture Regime</b>	
dry	H
mesic	H
wet	H
<b>Canopy Cover (density)</b>	
31-50 (B)	M
51-70 (C)	H
71-100 (D)	H

Land Cover Type	Rating
Aspen - Engelmann Spruce	H
Aspen - Lodgepole Pine	M
Aspen - Pine (Undifferentiated)	M
Aspen - White Spruce	H
Balsam Poplar	M
Balsam Poplar - Lodgepole Pine	M
Balsam Poplar - Pine (Undifferentiated)	M
Balsam Poplar - White Spruce	H
Black Spruce	M
Black Spruce - Aspen	M
Black Spruce - Balsam Poplar	M
Black Spruce - Engelmann Spruce	M
Black Spruce - Lodgepole Pine	M
Black Spruce - Pine (Undifferentiated)	M
Black Spruce - Tamarack	M
Black Spruce - White Spruce	M
Engelmann Spruce	H
Engelmann Spruce - Aspen	H
Engelmann Spruce - Balsam Fir	H
Engelmann Spruce - Lodgepole Pine	M
Engelmann Spruce - Subalpine Fir	H
Lodgepole Pine	M
Lodgepole Pine - Aspen	M
Lodgepole Pine - Balsam Poplar	M
Lodgepole Pine - Black Spruce	M
Lodgepole Pine - Engelmann Spruce	M
Lodgepole Pine - White Spruce	M
Pine (Undifferentiated)	M
Pine (Undifferentiated) - Aspen	M
Pine (Undifferentiated) - Balsam Poplar	M
Pine (Undifferentiated) - Black Spruce	M
Pine (Undifferentiated) - White Spruce	M
Poplar (Undifferentiated) - White Spruce	M
Tall Shrubland	M
Tamarack - Black Spruce	M
Tamarack Fen	M
Treed Burn	M
Treed Clearcut	M
White Birch	M
White Birch - Lodgepole Pine	M
White Spruce	H
White Spruce - Aspen	H
White Spruce - Balsam Poplar	H
White Spruce - Black Spruce	M
White Spruce - Lodgepole Pine	M
White Spruce - Pine (Undifferentiated)	M
White Spruce - Subalpine Fir	H

## Supplemental to Appendix 2.8

Northern Pygmy Owl habitat suitability ratings are provided here as an example. The full species ratings are provided in Chapter 8.3 – URSUS Report - PROJECTING EFFECTS OF TIMBER HARVEST SCENARIOS ON VEGETATION AND WILDLIFE HABITAT



