

LIGNUM LIMITED
and
FOREST RENEWAL BC

1:20,000 Terrestrial Ecosystem Maps of
Mule Deer Winter Range Areas
(McLeese Lake)

INTRODUCTION

The project area lies near Williams Lake, in the Cariboo Forest Region. It consists of the McLeese Lake mule deer winter range area, identified by BC Environment, in and adjacent to Lignum Limited's area of interest. This project was initiated by Lignum to meet Forest Practices Code requirements for ecosystem management and to aid in their innovative forest management planning. The ecosystem maps can be used as a base for many interpretations including those involving rare ecosystems, wildlife habitat, silviculture prescriptions and growth and yield.

The terrestrial ecosystem mapping methodology follows Resource Inventory Committee standards (1996) at survey intensity 4. Terrestrial ecosystem mapping uses 3 levels of ecosystem classification: ecosection units, biogeoclimatic units, and ecosystem units (RIC 1995). Ecosystem unit map labels consist of 2-letter codes which correspond to site unit numbers, plus site modifiers, structural stages and structural stage modifiers. Two ecosections, three biogeoclimatic subzones, and 61 site units are recognized here at a scale of 1:20,000.

The main objectives of this project were to:

- identify and map the ecosystems occurring in the area,
- identify the ecosystem units most important to mule deer,
- rate habitats for expected use by 14 other wildlife species.

ECOSECTION UNITS

CAB	Cariboo Basin	The ecosection is a flat upland area with a rainshadow climate east of the Fraser River. Much of the area is forested but grasslands occur in the dry and warm sites. Snow depths are low to moderate.
CAP	Cariboo Plateau	The Cariboo Plateau receives more moisture and less heat than the Cariboo Basin. The landscape could be described as a rolling hummocky plateau with wetlands in the depressions. Snow depths are moderate.

BIOGEOCLIMATIC UNITS

IDFxm	Interior Douglas-fir Very Dry Mild Subzone	The driest IDF subzone has an open canopy, a very limited shrub understorey, some extensive grassland areas and very low snow depths.
IDFdK3	Interior Douglas-fir Dry Cool Subzone, Fraser Variant	This subzone is similar to the xm but has more continuous forest cover, often dominated by lodgepole pine, few grassland areas and low to moderate snow depths.
SBSdw2	Sub-Boreal Spruce Dry Warm Subzone, Blackwater Variant	The driest SBS subzone has extensive deciduous and lodgepole pine forests with moderate understorey shrub cover and moderate snow depths.

ECOSYSTEM UNITS

Subzone	Site Series Symbol	Site Series #	Commonly Used Modifiers	Site Series Name	Typical Situation	Assumed Site Modifiers
IDFxm	CT	00		Cattail marsh	marsh	
	DJ	03	g	Fd-Juniper_Cladonia	gentle slope of deep, coarse-textured soils	c, d, j
	DM	05		Fd-Feathermoss-Step moss	significant slope, cool aspect; deep, medium-textured soils	d, k, m
	DP	01		Fd-Pinegrass-Feathermoss	gentle slope, deep, medium-textured soils	d, j, m
	DR	06	ac	Fd-Ricegrass-Feathermoss	lower slope receiving position, deep medium-textured soils	d, m
	DS	04	k	Fd-Bluebunch wheatgrass-Pasture, sage	significant slope, warm aspect, deep, medium-textured soils	d, m, w
	DW	02	cg	FD-Bluebunch wheatgrass-Penstemon	significant slopes of warm aspects, shallow soils	s, w
	NA	36		Spreading needlegrass-Cut-leaved anemone	significant slope, cool aspect; deep, medium-textured soils	d, k, m
	NP	35		Spreading needlegrass-Pussytoes	level to gentle sloping sites; deep, medium-textured soils	d, j, m
	RS	07	ac	Fd-Prickly rose-Sarsaparilla	lower slope receiving position, deep medium-textured soils	d, m
	SH	09		Sxw-Horsetail	gentle slope or depressional areas with deep, fine-textured soils	d, f, j
	SS	08		Sxw-Snowberry-Prickly rose	lower slope to depression, deep medium-textured soils	d, j, m
	WP	32		Bluebunch wheatgrass-Pasture sage	significant slope, warm aspect, coarse-textured soils	c, w
	WT	31		Bluebunch wheatgrass-Pussytoes	gentle slope, shallow soils	j, s
	WY	33		Bluebunch wheatgrass-Yarrow	gentle slope; medium-textured soils	j, m
IDFdk3	AF	00		Alkaligrass-Foxtail barley meadow	level, seasonal surface water	
	AS	00		Awne sedge fen-marsh	depression, surface water	
	BK	00		Scrub birch-Kinnikinnick Shrub-carr	level	
	BS	00		Buckbean-Slender sedge fen	depression, surface water	
	BU	00		Great Bulrush marsh	depression, surface water	
	BW	00		Beaked sedge-water sedge fen	level, surface water	
	CT	00		Cattail marsh	depression, surface water	
	DJ	03		Fd-Juniper-Peltigera	crest with shallow soils	r, s
	DK	02		Fd-Juniper-Kinnikinnick	significant slope, warm aspect, deep, coarse-textured soil	c, d, w
	DM	05		Fd-Feathermoss-Step moss	significant slope, cool aspect with deep, medium-textured soils	d, k, m
	DP	06		Fd-Pinegrass-Aster	significant slope, warm aspect, deep, medium-textured soils	d, m, w
	DW	04	cg	Fd-Bluebunch wheatgrass-Needlegrass	significant slope, warm aspect, deep, medium-textured soils	d, m, w
	IP	01	k	FdPl-Pinegrass-Feathermoss	gentle slope; deep, medium-textured soils	d, j, m
	LS	00		Labrador tea-Sphagnum poor fen	poor fen	
	MS	00		Maccall's willow-Beaked Sedge fen	level, seasonal surface water	
	PP	34		Short-awne porcupine grass-Pussytoes	level to gentle sloping sites; deep medium-textured soils	d, j, m
	RS	00		Arctic rush-Field sedge meadow	depression, seas, surface water	
	SH	09		Sxw-Horsetail-Glow moss	level, deep, medium-textured soils; high water table	d, m
SM	00		Slender Sedge-moss fen			
SR	07	ac	SxwFd-Prickly rose-Sedge	gentle slope, receiving positions, deep, medium-textured soils	d, j, m	
SS	08	ac	SxwFd-Prickly rose-Sarsaparilla	gentle, lower slope, receiving positions, deep, medium-textured soils	d, j, m	
SW	00		Scrub birch-Water sedge fen	fen, little or no sphagnum		

	TS	00	Tall Willow-Sartwell's sedge Swamp	level, surface water, near streams	
	WJ	00	Bluebunch wheatgrass-Junegrass	steep south-aspect slopes	
	WP	32	Bluebunch wheatgrass-Pasture sage	significant slope, warm aspect, coarse textured soils	c, w
	WT	31	Bluebunch wheatgrass-Pussytoes	gentle slope, shallow soils	j, s
	WY	33	Bluebunch wheatgrass-Yarrow	gentle slope; medium-textured soils	j, m
SBSdw2	BF	07	PlSb-Feathermoss	gentle slope; deep, medium-textured soil; cool sites	d, j, m
	BS	11	Sb-Soft-leaved sedge-Sphagnum	level or depressional sites; deep, medium-textured soil, poorly drained	d, j, m
	BW	00	Beaked sedge-water sedge fen		
	CT		Cattail marsh	marsh dominated by Typhlat	
	DC	02	FdPl-Cladonia	gentle slope; crest position; shallow soil over bedrock	j, r, s
	DP	04	Fd-Pinegrass-Aster	significant slope, warm aspect; deep, medium-textured soil	d, m, w
	LK	03	Pl-Kinnikinnick-Wavy-leaved moss	gentle slope; deep, coarse-textured soil	c, d, j
	LP	06	Pl-Pinegrass-Feathermoss	gentle slope; deep, medium-textured soil	d, j, m
	SD	09	Sxw-Devil's club-Knight's plume	gentle slope; receiving positions; deep medium-textured soil; seepage	d, j, m
	SH	10	Sxw-Horsetail	gentle slope, deep medium-textured soil, imperfectly drained	d, j, m
	SM	05	SxwFd-Cat's-tail moss	significant slope, cool aspect; deep medium-textured soil	d, k, m
	SP	01	SxwFd-Pinegrass	gentle slope; deep, medium-textured soil	d, j, m
	ST	08	ac Sxw-Twinberry	gentle slope, receiving positions; deep medium-textured soil	d, j, m
	SW	00	Scrub birch-Beaked sedge fen	depression, surface water	

SPARSELY VEGETATED AND NON-VEGETATED SITES

CF	Cultivated field
ES	Exposed soil
GP	Gravel pit
LA	Lake
OW	Shallow open water
RO	Rock
RP	Road surface
UR	Urban/Suburban

SITE MODIFIERS

a	active floodplain
c	coarse textured soils
d	deep soils
f	fine textured soils
g	gullyng occurring, or site unit located in gully
h	hummocky terrain
j	gentle to moderate slope
k	cool aspect (285-135 deg.), >25% slope
m	medium textured soils
n	glaciofluvial or colluvial fan/cone
p	peaty material
r	ridge
s	shallow soils (50-100cm)
t	terrace
w	warm aspect (135-285 deg.), >25% slope
z	very steep slope (>70%)

STRUCTURAL STAGE

1	Non-Vegetated /Sparse (< 20 yrs since major disturbance unless disclimax)
2	Herb (< 20 yrs unless disclimax)
3	Shrub (shrubs <10 m tall, < 20 yrs for forested sites)

- 3a. Low Shrub (shrubs < 2 m tall)
- 3b. Tall Shrub (shrubs 2-10 m tall)
- 4 Pole /Sapling (trees > 10 m tall & usually < 40 yrs)
- 5 Young Forest (trees > 10 m tall & 40-80 yrs)
- 6 Mature Forest (trees > 10 m tall; 80-140 yrs for Group A Subzones, 80-250 yrs for Group B subzones)
- 7 Old Forest (trees > 10 m tall; >140 yrs for Group A subzones, > 250 yrs for Group B subzones)

CREDITS

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