

TERRESTRIAL ECOSYSTEM MAPPING OF THE WEYERHAEUSER CANADA Ltd., TREE FARM LICENCE 15

Mapsheets 82E003,4,13,14,15,23,24,25,33,34,35

Map scale 1:20 000. 20 m contour interval.

January 30,1999

INTRODUCTION:

The Weyerhaeuser Canada Tree Farm Licence 15 is located within the Okanagan Highland and Thompson-Okanagan Plateau Ecoregions, east of the towns of Oliver and Okanagan Falls extending further east towards Mount Baldy ski area. It is approximately 49100 ha in area and is dissected by Vaseux, Shuttleworth and Inkaneep creeks.

Project Objectives: 1) The creation of base Terrestrial Ecosystem maps which will form the basis for future species and ecosystem analysis; 2) Creation of species algorithms or models for the white-headed woodpecker, Williamson's sapsucker elk, mule deer and lynx; Assessment of the area for suitability / capability for the above-mentioned species.

Mapping was completed following the methods as outlined in Standards for Terrestrial Ecosystem Mapping in British Columbia (RIC,1998). Fieldwork was completed in September of 1998 using survey intensity level 4.

BIOGEOCLIMATIC ZONES		ECOSECTIONS	
ESSFdc1	Okanagan Dry Cold Engelmann Spruce-Subalpine Fir Variant		
ESSFdcu	Okanagan Dry Cold Engelmann Spruce-Subalpine Fir Upper Elevational Variant		
ESSFdcpl	Okanagan Dry Cold Engelmann Spruce-Subalpine Fir Parland Variant		
IDFdm1	Kettle Dry Mild Interior Douglas-fir Variant		
IDFxh1	Okanagan Very Dry Hot Interior Douglas-fir Variant	NOH	Northern Okanagan Highland
MSdm1	Okanagan Dry Mild Montane Spruce Variant	SOB	Southern Okanogan Basin
PPxh1	Okanagan Very Dry Hot Ponderosa Pine Variant		

  

SITE MODIFIER SYMBOLS		STRUCTURAL STAGES	
Symbol	Criteria	Symbol	Description
Topography		1 (NS)	Non-vegetated/sparse
		1a (NV)	Non-vegetated-less than 5% vegetation cover

a active floodplain  
g gullying occurring  
h hummocky terrain  
j gentle to moderate slope  
k cool, northerly or easterly aspects (285 - 135 degrees;  
slope greater than 25%)  
n fan (glaciofluvial or colluvial fans) or cone  
q very steep cool aspect, greater than 100% slope  
t terrace  
w warm, southerly or westerly aspects (135 - 285 degrees;  
slope greater than 25%)  
z very steep warm aspect, greater than 100% slope

Moisture

x drier than average  
y moister than average

Soil

c coarse-textured soils (includes sandy loam, loamy sand,  
sand textures, fine matrix with over 70% coarse fragments,  
and medium matrix with over 35% coarse fragments)  
d deep soil (greater than 100 cm to bedrock)  
f fine-textured soils (heavy clay, silty clay, clay and  
sandy clay textures)  
m medium-textured soils (includes silty clay loam, clay  
loam, silt, silt loam, loam, and sandy clay loam textures)  
p peaty material on surface  
s shallow soil (50 cm - 100 cm to bedrock)  
v very shallow soil (10 cm - 50 cm to bedrock)

1b (SP) Sparse-less than 10% vegetation cover  
1c (BR) Bryoid-bryophyte and lichen

2 (H) Herb  
2a (FO) Forb-dominated  
2b (GR) Graminoid-dominated  
2c (AQ) Aquatic  
2d (DS) Dwarf shrub-dominated

3 (SH) Shrub/Herb  
3a (LS) Low Shrub-dominated by shrubby  
vegetation <2m tall  
3b (TS) Tall Shrub-dominated by shrubby  
vegetation 2-10m tall

4 (PS) Pole/Sapling

5 (YF) Young forest -time since disturbance  
40-80 years

6 (MF) Mature forest -time since disturbance  
80-140 years for biogeoclimatic group  
A and 80-250 years for group B

7 (OF) Old forest -time since disturbance  
generally greater than 140 years in  
group A and >250 years in group B

Group A: ESSFdc, MSdm

Group B: all other biogeoclimatic units  
within Weyerhaeuser Canada, Tree  
Farm Licence 15

ESSFdc1 Okanagan Dry Cold Engelmann Spruce - Subalpine Fir Variant

| Typical |

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Moisture Regime	Mapped Modifiers
CC	00	Cottongrass-Clubrush	d,j	deep, level organic and morainal sites	subhydryc -hydryc	
EP	02	PlSe-Pinegrass	d,m,w	significant slope; warm aspect; deep medium-textured soil	subxeric	g,k,s
FG	03	Bl-Grouseberry-Cladonia	c,d	significant slope; deep, coarse-textured soil	subxeric -submesic	h,j,k,m, r,s,v,w, z
FH	06	Bl-Horsetail-Glow moss	d,m	level, high water table; deep, medium-textured mineral soil	hygric	g,p
FR	01	Bl-Rhododendron-Grouseberry	d,j,m	gentle slope; deep, medium-textured soil	mesic	c,g,h,k s,w
FT	05	Bl-Trapper's tea	d,j,m	gentle, lower slope, receiving position; deep, medium-textured soil	subhygric	a,g,h,k, w
PJ	00	Pl-Juniper-Cladonia	j,m,s	gentle, upper and crest slopes; shallow, medium-textured soil	xeric - very xeric	k,w
RV	04	Bl-Rhododendron-Valerian	d,j,m	gentle, lower slope, receiving position; deep, medium-textured soil	subhygric	
SM	00	Sedge wet meadow	d,j,m	gentle slope; deep, medium-textured soil	hygric - subhydryc	a,k,w
SS	07	Sedge-Sphagnum	p	organic wetland	subhydryc	

ESSFdcpl Okanagan Dry Cold Engelmann Spruce - Subalpine Parkland Fir Variant

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
FH	00	BlPa-Pink mountain heather-Grouseberry	j,m,s	gentle slope; shallow, medium-textured soil	mesic -submesic	h,k,w
FV	00	Bl-Valerian-Pink mountain heather	j,m,s	gentle slope; shallow, medium-textured soil	subhygric -hygric	d,k,v
HL	00	Pink mountain heather-Lichen	j,m,s	gentle slope; shallow, medium-textured soil	subxeric -submesic	w
SF	00	Sedge-Alpine fescue	j,m,s	level to gentle slope; shallow, medium-textured soil	mesic	k
SR	00	Black alpine sedge-rush late snow lie	j,m,s	level to gentle slope; shallow, medium-textured soil	hygric	h
VG	00	Valerian-Globeflower herbaceous meadow	j,m,s	level to gentle slope; shallow, medium-textured soil	subhygric	

ESSFdcu Okanagan Dry Cold Engelmann Spruce - Subalpine Fir Upper Elevational Variant

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
CC	00	Cottongrass-Clubrush wet meadow	d,j,m	level slope; deep, medium-textured soil	subhydric -hydric	
FG	00	Bl/Pa-Grouseberry-Pink mountain heather	d,j,m	gentle slope; deep, medium-textured soil	mesic -submesic	h,k,r,s, w

FV	00	Bl-Valerian	d,j,m	gentle slope; deep, medium-textured soil	subhygric -hygric	g,k,s,w
PJ	00	Pl/Bl-Juniper-Grouseberry	j,m,s	gentle slope, crest position; shallow, medium-textured soil	xeric -subxeric	k,r,w
PP	00	Pl-Pinegrass	j,m,s	gentle slope; shallow, medium-textured soil	subxeric -submesic	w
SG	00	Sedge-Glow moss wet meadow	d,j,m	level to gentle slope; deep, medium-textured soil	hygric	

IDFdml Kettle Dry Mild Interior Douglas-fir Variant

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
AB	00	Alder/Willow-Sedge-Bluejoint	d,j,m	gentle, level fluvial sites with associated seepage; deep, medium-textured soil	hygric	k
CT	00	Cattail Marsh	d,j,m	level sites; deep, medium-textured soil	hydric	
DP	04	Fd-Pinegrass-Kinnikinnick	d,j,m	gentle slope; deep, medium-textured soil	subxeric -submesic	c,h,k,n, q,r,s,t, v,w
DT	01	FdPl-Pinegrass-Twinflower	d,j,m	gentle slope; deep, medium-textured soil	submesic -mesic	c,g,h,k, n,s,t,w
DW	03	FdPy-Bluebunch wheatgrass-Pinegrass	d,m,w	significant slope, warm aspect; deep, medium-textured soil	xeric -subxeric	c,g,h,j, k,n,r,s

PJ	00	Penstemon-Juniper	j,m,s	gentle, upper slopes; shallow, medium-textured soil	very xeric -xeric	h,k,r,v, w
SD	06	SxwFd-Dogwood-Gooseberry	d,j,m	gentle, lower slope, receiving sites; deep, medium-textured soil	subhygric	a,c,g,h, k,n,t
SE	00	Sedge fen	p	level sites; organic soil	hydric- subhydric	
SH	07	Sxw-Horsetail	j	gentle, lower slope, receiving sites	subhygric -hygric	g,p
SM	00	Sedge wet meadow	a,d,j,m	level fluvial sites with associated seepage; deep, medium-textured soil	subhydric- hygric	g,w
SP	05	FdLw-Spruce-Pinegrass	d,j,m	gentle slope; deep, medium-textured soil	mesic -subhygric	c,g,h,k, n,s,t,w
WJ	02	Bluebunch wheatgrass- Junegrass	d,m,w	significant slope, warm aspect; deep, medium-textured soil	xeric -subxeric	g,h,j,k, r,s

IDFxh1 Okanagan Very Dry Hot Interior Douglas-fir Variant

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
AB	00	Alder-Sedge	d,j,m	gentle, level fluvial sites with associated seepage; deep, medium- textured soil	hygric	
AS	00	Antelope brush-Selaginella	j,m,s	gentle, upper slope and crests; shallow, medium-textured soil	xeric- very xeric	h,k,w,z

BN	96	Kentucky bluegrass-Stiff needlegrass	d,j,m	gentle, lower slope position; deep, medium-textured soil	subhygric	w
CT	00	Cattail Marsh	d,j,m	level sites; deep, medium-textured soil	hydric -subhydric	
DF	06	FdPy-Spirea-Feathermoss	d,j,m	gentle slope; moist, receiving sites; deep, medium-textured soil	subhygric	g,k,s,w
DP	01	FdPy-Pinegrass	d,j,m	gentle slope; deep, medium-textured soil	mesic	c,g,h,k n,s,w
DS	07	FdPy-Snowberry-Spirea	d,j,m	gentle slope; moist, receiving sites; deep, medium-textured soil	subhygric	g
DW	03	FdPy-Bluebunch wheatgrass- Pinegrass	d,m,w	significant slope, warm aspect; deep, medium-textured soil	xeric -subxeric	c,g,h,j, k,r,s,v
FW	91	Fescue-Bluebunch wheatgrass	d,j,m	gentle slope; deep, medium-textured soil	submesic -mesic	c,h,k,s, w
PB	02	FdPy-Bluebunch wheatgrass- Balsamroot	s,w	significant slope, warm aspect; shallow soil	xeric	h,j,k,v, z
PF	05	FdPy-Pinegrass-Idaho fescue	d,j,m	gentle slope; deep, medium-textured soil	mesic	h,k,s,w
SD	08	SxwFd-Douglas maple-Dogwood	j,m	gentle slope to level sites; moist, medium-textured soil	subhygric	a,g,k,n, t,w
SF	94	Big sage-Bluebunch wheatgrass -Idaho fescue	d,j,m	gentle slope; deep, medium-textured soil	submesic -mesic	g,s,w
SP	04	FdPy-Snowbrush-Pinegrass	d,j,m	gentle slope; deep, medium-textured soil	subxeric -submesic	a,c,g,h, k,n,q,s, t,v,w
WA	92	Big sage-Bluebunch wheatgrass	d,m,w	significant slope, warm aspect; deep,	xeric	k,s

		-Balsamroot		medium-textured soil	-submesic	
WB	93	Bluebunch wheatgrass-Balsamroot	d,m,w	significant slope, warm aspect; deep, medium-textured soil	subxeric -submesic	c,h,j,k, s
WS	09	Willow-Sedge	d,j,m	depressional, mineral wetland; deep, medium-textured soil	hygric -subhydric	p

MSdml Okanagan Dry Mild Montane Spruce Variant

Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
AB	00	Alder/Willow-Sedge-Bluejoint	d,j,m	gentle, level fluvial sites with associated seepage; deep, medium-textured soil	hygric-subhydric	a,g,k,w
DP	00*	Fd-Penstemon-Pinegrass	j,r,s	gentle upper slope; crest position; shallow soil	very xeric	d,h,k,v, w
PG	03	Pl-Grouseberry-Cladonia	d,j,m	gentle slope; deep, medium-textured soil	xeric -subxeric	c,h,k,n, r,s,t,w
PJ	00	Pl-Juniper-Cladonia	j,m,s	gentle, upper and crest slopes; shallow, medium-textured soil	xeric -subxeric	h,k,q,r, w
PP	04	Pl-Pinegrass-Kinnikinnick	d,j,m	gentle slope; deep, medium-textured soil	subxeric -submesic	c,h,k,n, q,r,s,t, v,w
SF	01	Sxw-Falsebox-Feathermoss	d,j,m	gentle slope; deep, medium-textured soil	mesic	c,g,h,k, s,t,w
SG	06	Sxw-Gooseberry	d,j,m	gentle, lower slope, receiving site;	subhygric	a,c,g,h



				deep, medium-textured soil	-hygric	k,t,w
SH	07	Sxw-Trapper's tea-Horsetail	d,j,m	gentle, lower slope, receiving site; deep, medium-textured soil	hygric -subhydric	a,p,t
SM	00	Sedge wet meadow	d,j,m	deep, level, medium-textured soil	subhydric -hydric	
SP	02	Fd-Big sage-Pinegrass	j,r,s	gentle slope; crest position; shallow soil	very xeric	d,k,w
ST	05	Sxw-Trapper's tea-Grouseberry	d,j,m	gentle, lower slope, receiving site deep, medium-textured soil	subhygric	a,c,g,h, k,n,s,t, w
SW	00	Sedge wetlands	p	organic wetland	subhydric- hydric	
WS	08	Willow-Sedge	p	organic wetland	subhydric	a

\* DP is the NELSON Field Guide's "02" unit

PPxh1 Okanagan Very Dry Hot Ponderosa Pine Variant						
Map Symbol	Site Series	Site Series Name	Assumed Modifiers	Typical Situation	Typical Moisture Regime	Mapped Modifiers
DM	08	Fd-Water birch-Douglas maple	d,m	level slope; moist, rich sites; deep, medium-textured soil	subhygric -hygric	
DS	07	FdPy-Snowberry-Spirea	d,j,m	gentle slope; moist, rich sites; deep, medium-textured soil	subhygric	k
PC	04	Py-Bluebunch wheatgrass-	d,j,m	gentle slope; deep, medium-textured	subxeric	c,h,k,n,

		Cheatgrass		soil	-mesic	q,r,s,t, v,w,z
PF	05	Py-Bluebunch wheatgrass- Rough Fescue	d,j,m	gentle slope; deep, medium-textured soil	mesic	k,s
PT	02	Py-Red three-awn	d,c,w	significant slope, warm aspect; deep, coarse-textured soil	very xeric -subxeric	h,j,k,n, r,s,v,z
PW	01	Py-Bluebunch wheatgrass- Idaho fescue	d,j,m	gentle slope; deep, medium-textured soil	mesic	c,g,h,k, n,q,s,t, w
SB	00	Sellaginella-Bluebunch Wheatgrass	j,m,s	gentle, upper slopes; shallow, medium-textured soil	very xeric -xeric	h,k,q,r v,w,z
SP	06	FdPy-Snowberry-Pinegrass	d,j,m	gentle, moisture receiving sites; deep, medium-textured soil	subhygric	a,g,k,s, t,w
SW	03	Big sage-Bluebunch wheatgrass Balsamroot	d,j,m	gentle slope; deep, medium-textured soil	subxeric	c,h,k,r, s,t,w,z

Non-vegetated, Sparsely vegetated, and Anthropogenic units

Symbol	Ecosystem Unit	Mapped Modifiers	Structural Stage	BEC zone location
BA	Barren		1	IDFxb1
BF	Blockfields, blockslopes, blockstreams	k,w	1	ESSFdc1, IDFdm1, IDFxb1, MSdm1
CL	Cliff	q,z	1	ESSFdc1, ESSFdcu, IDFdm1, IDFxb1, MSdm1, PPxb1
CO	Cultivated orchard		3	PPxb1
ES	Exposed soil	k,w	1	IDFdm1, IDFxb1, MSdm1, PPxb1
GB	Gravel bar		1	IDFxb1, PPxb1
GP	Gravel pit		1	IDFdm1

OW	Shallow open water			ESSFdcl, ESSFdcu, IDFdml, IDFxh1, MSdml, PPxh1
PD	Pond			ESSFdcl, ESSFdcu, IDFdml, MSdml, PPxh1
RE	Reservoir			IDFxh1
RI	River			IDFdml, IDFxh1, MSdml, PPxh1
RO	Rock outcrop	h,k,r,w	1	All
RP	Road surface	k		ESSFdcl, IDFdml, IDFxh1, MSdml, PPxh1
RR	Rural			IDFxh1
RU	Rubble	k,w	1	IDFxh1, MSdml
TA	Talus	h,k,n,q,w,z	1	All
UR	Urban / Suburban	w		IDFxh1, MSdml

#### DATA SOURCES

This mapping project is based on 1:15 000 colour aerial photography from Geographic Data BC taken in 1996. Base map is from Terrain Resource Inventory Mapping (TRIM) from Geographic Data BC, forest cover maps from Weyerhaeuser Canada Ltd., Okanagan Falls. 42 full plots, 106 ground inspection and 433 visual checks were completed.

#### CREDITS

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#### CITATION

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