VEGETATION

FOREST ZONATION AND LANDSCAPE UNITS

for the East Kootenay Map area

1. Explanatory Notes

A vegetation map shows Forest Regions, Zones, Subzones, and vegetation landscape units. Zones, Subzones and landscape units are the basic units used in biophysical classification. A landscape unit is an area that is relatively homogeneous with respect to soils, surficial materials, disturbance history, climate and macro vegetation. Vegetation maps form a necessary input towards determining management alternatives, constraints, use and productivity.

This legend describes vegetation maps at a scale of 1:50 000 for mapsheets in 82G, J and O.

The map must be used in conjunction with the Explanatory Legend booklet, (See Box 10).

More detailed legends or reports may be available for this study area (See Box 10).

2. Map Boundaries and Plot Symbols

- Biophysical Forest Region
- Biophysical Forest Zone
- Biophysical Forest Subzone
- Landscape unit
- NV — Non-vegetated landscape unit (no zonal or subzonal connotations)
- 79-37253 — Vegetation plot with a general soil description
- L 79-37254 — Vegetation plot with a detailed soil description and laboratory analysis

3. Examples of Map Symbols

(a) Biophysical Forest Regions, Zones and Subzones (See Box 5)

IWB — REGION
IwC — ZONE
a — SUBZONE

(b) Landscape Unit

Example 1: MCC - wH, wC : cfd
ECOLOGICAL STATE (See Box 6) — PLANT SPECIES (See Box 7) — STAND APPEARANCE (See Box 8)

Example 2: MEC : m
ECOLOGICAL STATE (See Box 6) — STAND APPEARANCE (See Box 8)

Example 3*: MEC - bCo, eS : mfd / MS - tA, aS : mfd

* For some landscape units both seral and climax conditions are shown. These units have the seral condition in the lower part of the symbol. They are expected to lead to the climax condition shown in the upper part. The two parts are separated with a horizontal line.

4. Composite Units

Composite units are employed where two or three types of landscape units are so distributed that they cannot be designated as separate units at the scale of mapping.

Superscript numbers show the relative percentages in tens of each landscape unit.

MCC - eS, alF : cfd^5 / MEC : m^3 / MEC - sAl : ps^2

50% of unit — 30% of unit — 20% of unit

5. Biophysical Forest Regions, Zones and Subzones

Forest Region[1]	Map Symbol	Forest Zone[2] and Subzone[3]
DFI INTERIOR REGION (DI)		INTERIOR ROCKY MOUNTAIN DOUGLAS-FIR ZONE (ID)
	DI ID a	a) Lodgepole pine subzone (lacks ponderosa pine as a potential seral species)
	DI ID b	b) Ponderosa pine subzone (with ponderosa pine and lacks western larch as potential seral species)
	DI ID c	c) Western larch - ponderosa pine subzone (with ponderosa pine and western larch as potential seral species)
		SUBALPINE ENGELMANN SPRUCE-ALPINE FIR ZONE (SAeS-alF)
	DI SAeS-alF a	a) Lodgepole pine-whitebark pine subzone (lacks Rocky Mountain Douglas-fir as a potential seral species)
	DI SAeS-alF b	b) Krumholtz subzone (trees have stunted growth form and are layered in island patterns)
	DI SAeS-alF c	c) Rocky Mountain Douglas-fir-lodgepole pine subzone (with Rocky Mountain Douglas-fir as a potential seral species)
		ALPINE TUNDRA ZONE (At)
	DI At	subzones have not been determined

Forest Region[1]	Map Symbol	Forest Zone[2] and Subzone[3]
INTERIOR WET BELT REGION (IWB)		INTERIOR WESTERN HEMLOCK-WESTERN RED CEDAR ZONE (IWhwC)
	IWB IWH-wC a	a) Rocky Mountain Douglas-fir lodgepole pine-western larch subzone (lacks alpine fir and Engelmann spruce as potential seral species)
	IWB IWhwC b	b) Lodgepole pine-Engelmann spruce-alpine fir subzone (with alpine fir and Engelmann spruce as potential seral species)
		INTERIOR WESTERN RED CEDAR ZONE (IWC)
	IWB IWC a	a) Rocky Mountain Douglas-fir subzone (lacks alpine fir and Engelmann spruce as potential seral species)
	IWB IWC b	b) Lodgepole pine-Engelmann spruce-alpine fir subzone (with alpine fir and Engelmann spruce as potential seral species)
		SUBALPINE ENGELMANN SPRUCE-ALPINE FIR ZONE (SAeS-alF)
	IWB SAeS-alF a	a) Forested subzone

1 A Biophysical Forest Region is an area in which the broad regional climate and physiography determine the definitive vegetation pattern of the region. Regions can be further divided into Sections, Zones and Subzones.

2 A Biophysical Forest Zone is an area within a Forest Region of which the dominant vegetation of the climax stands on similar soils and terrain is homogeneous. Soil, climate and topographic conditions determine the definitive vegetation pattern of zones.

3 A Biophysical Forest Subzone is an area within a Forest Zone defined on the basis of climate-related successional trends of dominant vegetation.

6. Ecological State

Ecological State is the successional stage to which vegetation has developed. The successional stages are determined by plant species structure and plant competition relationships in the community.

DC	disclimax
MCC	maturing climatic climax (usually older than 60 years)
MEC	maturing edaphic climax (usually older than 60 years)
MS	maturing seral (usually between 60-140 years)
OS	overmature seral (usually older than 140 years)
PS	pioneer seral
YCC	young climatic climax (usually younger than 60 years)
YEC	young edaphic climax (usually younger than 60 years)
YS	young seral (usually younger than 60 years)

7. Plant Species

Tree species symbols are used to signify a vegetation type. Because of the natural variability of the vegetation, the indicated species may be infrequent or even absent from some sites, but many of the characteristics of the typical vegetation will occur.

aL	alpine larch	tA	trembling aspen
alF	alpine fir	w	willow
bCo	black cottonwood	wB	common paper birch
D	Rocky Mountain Douglas-fir	wC	western red cedar
eS	Engelmann spruce	wH	western hemlock
lp	lodgepole pine	wbP	whitebark pine
pP	ponderosa pine	wL	western larch
sAl	Sitka mountain alder	wS	white spruce

8. Stand Appearance

Stand Appearance is the structure and appearance of the vegetation, regardless of the species of which it is composed.

Forested Units		Non-forested Units	
cfd	coniferous forest - dense	at	alpine tundra
cfo	coniferous forest - open	cf	cultivated undifferentiated
cfp	coniferous forest - parkland	cc	cultivated cover crop
dfd	broadleaved forest - dense	cf	cultivated fields
dfo	broadleaved forest - open	ch	cultivated hedgerow
dfp	broadleaved forest - parkland	k	krumholtz
mfd	mixed forest - dense	nv	non-vegetated
mfo	mixed forest - open	NV	nonvegetated
mfp	mixed forest - parkland	p	pioneer undifferentiated
		ph	pioneer herb
		ps	pioneer shrub
		s	seasonal snow
		t	tundra
		s	seasonal
		t	steppe
		w	wetland undifferentiated
		wb	wetland bog
		wf	wetland fen
		wm	wetland marsh
		ws	wetland swamp

9. Sources of Information

a. B.C. Ministry of Forestry - Forest cover maps for Public Sustained Yield Units and Parks:
   - i. Kootenay National Park - 1954
   - ii. Cranbrook P.S.Y.U. - 1964
   - iii. Upper Kootenay P.S.Y.U. - 1965
   - iv. Golden P.S.Y.U. - 1966
   - v. Creston P.S.Y.U. - 1973
   - vi. Fernie P.S.Y.U. - 1973
   - vii. Individual sample volume statements - 867 plots

b. Galloway Lumber Company Ltd.
   - i. Tree Farm Licence 13 - forest cover maps
   - ii. Individual sample volume statements - 45 plots

c. Crownest Industries Ltd.
   - i. Tree Farm Licence 27 - forest cover maps

d. B.C. Ministry of Environment, Resource Analysis Branch
   - i. Terrain maps - 1977
   - ii. Soil survey (1968, 1974-1978)
   - iii. Climate maps (preliminary) - not available
   - iv. Vegetation survey (1968, 1974-1977) - 1010 plots

e. B.C. Ministry of Environment, Surveys and Mapping Branch
   - i. 80 chain air photographs - 1972

10. For Further Information

A. References:

(a) Vegetation Mapping Methodology Manual, Terrestrial Studies Branch, Victoria, B.C. (In preparation).

(b) Explanatory Legend for Vegetation Maps of the East Kootenay Area, Terrestrial Studies Branch, Victoria, B.C., 1980.

(c) Biophysical Resources of the East Kootenay Area: Vegetation, Terrestrial Studies Branch, Victoria, B.C., (In preparation).

B. Additional vegetation data and more detailed information (1968, 1974-76) available from:

Operations Manager
Terrestrial Studies Branch
Ministry of Environment
Parliament Buildings
Victoria, B.C. V8V 1X4

C. Additional vegetation maps available from:

Map Library
Assessment and Planning Division
Ministry of Environment
Parliament Buildings
Victoria, B.C. V8V 1X4

11. Credits

Mapping supervised by E.C. LEA

Mapping correlated by E.C. LEA

Date of field mapping 1978-79

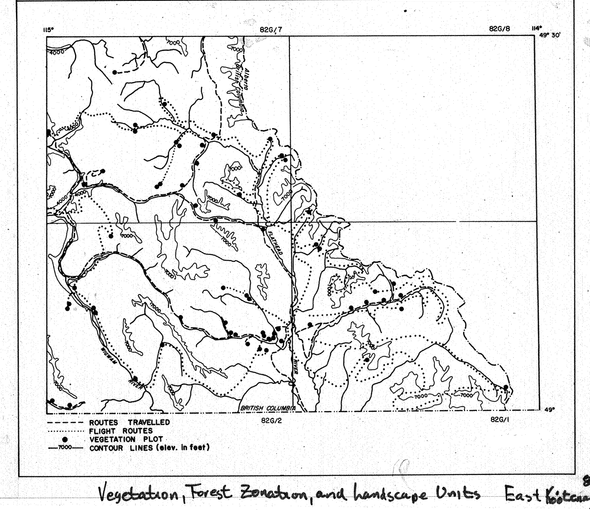
Drafted by Cartography Unit, Resource Analysis Branch, Ministry of Environment, Victoria, B.C.

Date drafted 1978-79

Revision dates ____, ____, ____

Base map provided by Surveys and Mapping Branch, Ministry of Environment, Victoria, B.C.

12. Observation and Sample Plot Distribution



Vegetation, Forest Zonation, and Landscape Units East Kootenay 82G/1

82 G/1