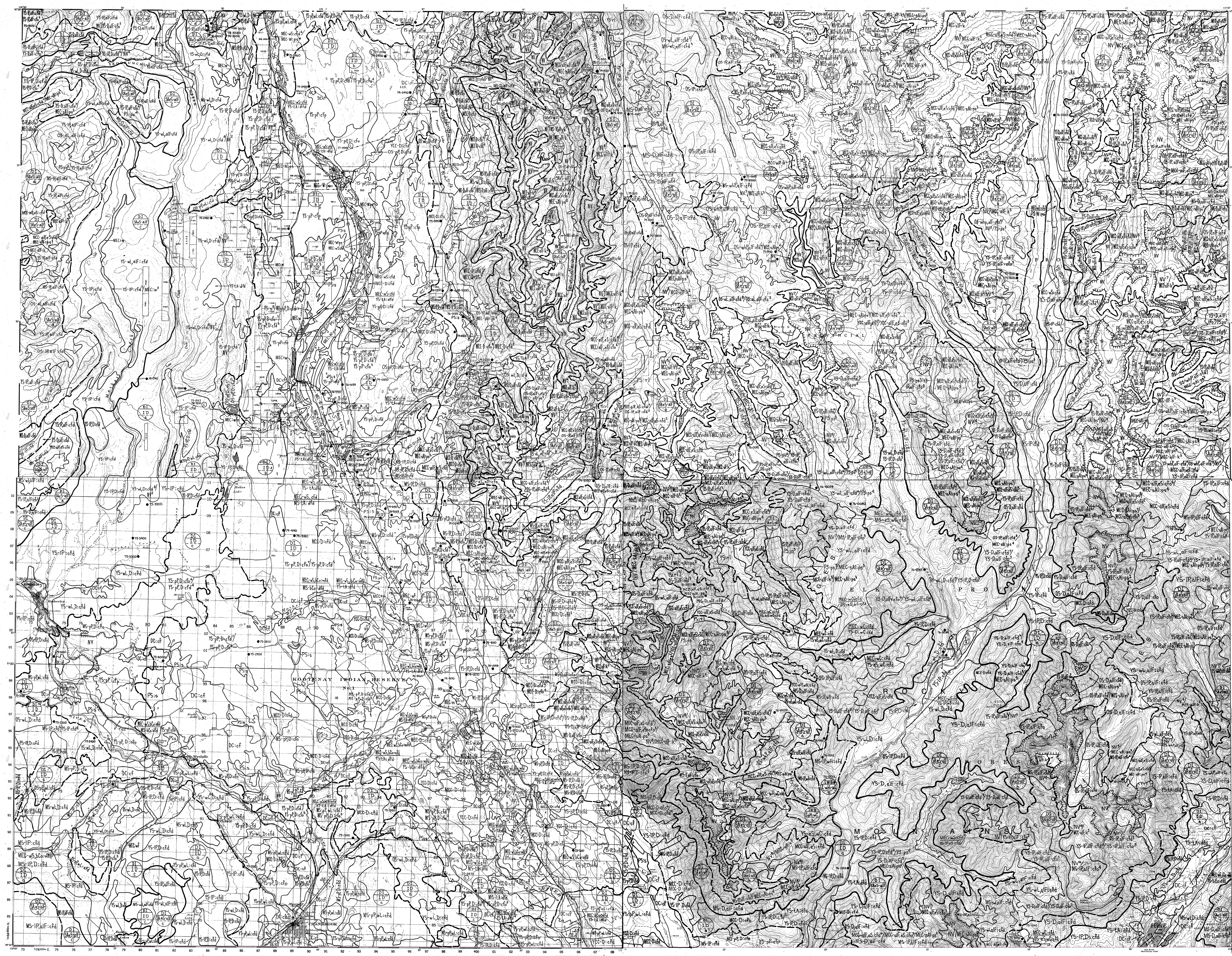
EAST KOOTENAY
1978-79, 82 G/N.W.



CRANBROOK

Scale 1:100000

82G/NW

# VEGETATION

## FOREST ZONATION AND LANDSCAPE UNITS
### for the East Kootenay Map area

82G/NW

### 1. Explanatory Notes

A vegetation map shows Forest Regions, Zones, Subzones, and vegetation landscape units. Zones, subzones and landscape units are the basic building blocks of this 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
Ⓛ 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, eS : 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 : cfd⁵ / MEC : m³ / MEC - sAl : ps²
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] |
|---|---|---|
| DRY 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 ENGLEMANN 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) Krummholz 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 (IwH-wC) |
| | 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 / IwH-wC / 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 identical. 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 community 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 | whP | 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 | c | 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 | krummholz |
| mfd | mixed forest - dense | m | meadow |
| mfo | mixed forest - open | NV | nonvegetated |
| mfp | mixed forest - parkland | p | pioneer undifferentiated |
| | | ph | pioneer herb |
| | | ps | pioneer shrub |
| | | rl | recently logged |
| | | s | savannah |
| | | 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. Windermere P.S.Y.U. - 1968
   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. Crowsnest 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 informaton (1968, 1974-76) available from:

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

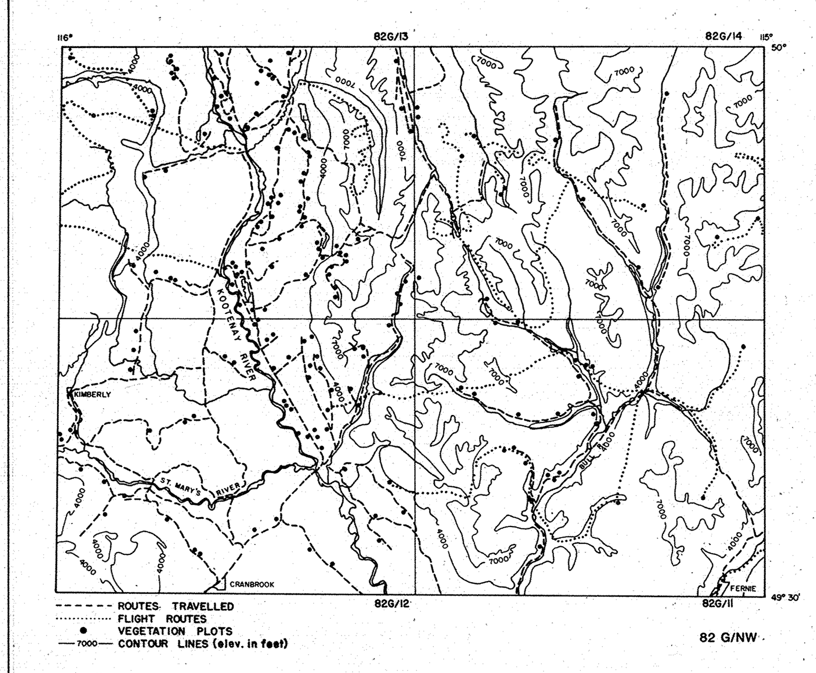
C. Additional vegetation maps available from:

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, Kelowna, 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

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Vegetation, Forest Zonation and landscape Units East Kootenay